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ABSTRACT

To facilitate articulation agreements with local high schools, the American River College (ARC) created the Articulation Council composed of members of the college administration and the administrations of several local high school districts. From this committee, secondary school/college faculty committees were formed to examine articulation possibilities in a number of subject areas. With state funding, ARC developed additional articulation efforts with regional occupational programs, adult schools, and universities. This articulation manual, containing basic information on articulation as well as a set of materials for each articulated program at ARC, was designed to serve as both a training manual and a basic reference tool. Following an introductory section defining articulation and describing the benefits for students and programs, articulation materials are provided for 12 specific programs including information on general agreements and procedures, course competencies, and the forms used in the articulation process. The twelve programs are: (1) Art/Home Economics; (2) Automotive Technology; (3) Behavioral/Social Sciences; (4) Business; (5) Communications/Humanities; (6) Electronic Technology; (7) Fire Technology; (8) Forestry; (9) Horticulture; (10) Mathematics/Engineering/Drafting; (11) Science; and (12) Welding. Appendixes include a sample high school district course numbering system, ARC graduation requirements, ARC proficiency requirements, ARC transfer center information, California State University general education requirements and a sample board resolution. (GFW)

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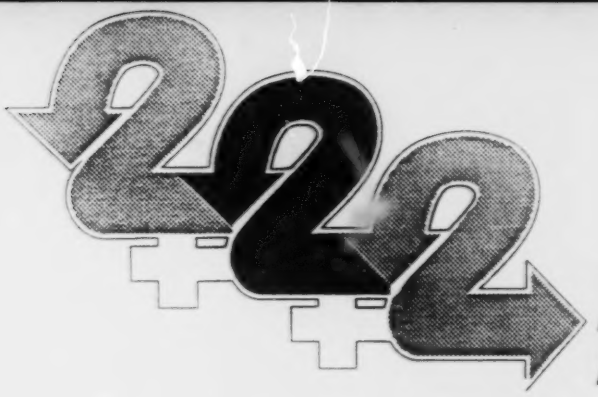


# ARTICULATION
## A Partnership for Excellence

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AMERICAN RIVER COLLEGE
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**1988-1989**

# 2 + 2 + 2 BUSINESS ARTICULATION PROJECT

(Year 2)

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Funding was provided through a cooperative effort by the

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**Project No. 88-0040**

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and the

**California State Department of Education**
**Account No. 34-67371-IIB-9-065 and SO-275-89***

Gary Thompson, Business Program Manager
Lee Murdock, Supervisor and Project Monitor

*Funds from the California State Department of Education projects were authorized by the Carl D. Perkins Vocational Education Act of 1984 (P.L. 98-524).

1987-1988

**PROJECT #34-67371-11B-7-800**

**VOCATIONAL EDUCATION ARTICULATION PROJECT**

(Year 1)


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Funding was provided through a cooperative effort by the

**Chancellor's Office, California Community Colleges**

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**California State Department of Education**

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Mr. Chris Almeida, Primary Monitor

Funds for this project are authorized by the Carl D. Perkins Vocational Education Act of 1984 (P.L. 98-524).

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## PROJECT ADVISORY COMMITTEE

### 1989-1990

| | |
|---|---|
| Dr. David Montague | Sacramento County Office of Education |
| Mr. Jack Jenkins | Sacramento County Office of Education |
| Ms. Peggy Piccardo | Center Unified School District |
| Ms. Nancy Sporleder | Elk Grove Unified School District |
| Dr. Wayne Beckman | Folsom/Cordova Unified School District |
| Mr. Bill McMichael | Folsom/Cordova Unified School District |
| Ms. Dorothy Schmidt | Galt Joint Union High School District |
| Mrs. Diana Bowington | Grant Joint Union High School District |
| Mr. Richard Bagley | River Delta Unified School District |
| Mr. Knute Clark | Roseville Joint Union High School District |
| Mr. Harvey Fischer | Sacramento City Unified School District |
| Mrs. Fran Rosen | Sacramento City Unified School District |
| Mrs. Marie Mijares | Sacramento Job Corps |
| Mr. Ron Hackett | San Juan Unified School District |
| Ms. Kim Hodenfield | Washington Unified School District |
| Mr. Myron Nadolski | American River College |
| Mr. Gary Strauss | Consumnes River College |
| Mr Donald Goff | Sacramento City College |
| Dr. June Stuckey | California State University, Sacramento |
| Dr. Felicenne Ramey | California State University, Sacramento |

AMERICAN RIVER COLLEGE
CENTER UNIFIED SCHOOL DISTRICT
GRANT UNION HIGH SCHOOL DISTRICT
SAN JUAN UNIFIED SCHOOL DISTRICT

## Membership of Articulation Council

| Function | American River College | High School Districts | CSU, Sacramento |
|---|---|---|---|
| Chief Executive Officer | President | Superintendent | |
| CEO Support | Vice President, Instruction | Asst. Superintendent (CUSD) | |
| | Vice President, Student Services | Asst. Superintendent GUHSD)<br>Asst. Superintendent (SJUSD) | |
| Curriculum | Deans, Instruction | Director, Secondary Education<br>Director of Curriculum | |
| Vocational Education | Dean, Continuing/Occupational Education | Director of Vocational Education | |
| Student Services | Dean, Counseling | Director of Student Services | |
| Front-line Managers/Principals | Dean, Admissions/Records<br>Area Deans - 4 | 2 Senior High Principals<br>2 Junior High Principals | |
| Research | Dean, Research | Research Director | |
| Articulation | Articulation Officer | Project Directors/Coordinators/ Head Counselors | Articulation Officer |
| Faculty Representative | Faculty Senate President | | |

American River College has a strong record in the area of articulation. Our electronics program began establishing articulation agreements with local high schools in 1981. This contact gave us a working model on which to base a larger-scale project, which we began in 1988 with funding from the Chancellor's office of the California Community Colleges and the State Department of Education's Vocational Education Unit.

To facilitate articulation agreements, we have created an Articulation Council, composed of members of the college administration and those from the administrations of several local high school districts. From this have sprung secondary school/college faculty committees which are examining articulation possibilities in a number of subject areas.

We are committed to improving linkages between faculties and to aligning our curriculums into a learning sequence. One of the more visible results of these efforts is this manual, which serves both as a training resource and as a basic articulation reference.

We are proud of the lead taken by American River College in articulation, and of the real progress we have seen. We look forward to an even brighter future.

Dr. Queen F. Randall
President
American River College

## ACKNOWLEDGEMENTS

The project advisory committee must be thanked for their contribution to the success of the articulation project. The advisory committee served as liaison between American River College and all of the unified and secondary school districts, as well as the universities. The members of the advisory committee selected the individual teachers from high school and ROP programs who they thought should be involved in this articulation effort. The instructors they picked were enthusiastic and worked hard to make articulation a success.

This articulation manual exists mainly due to the efforts and dedication of Marie Perino, a business instructor at American River College. Marie designed the manual as a working document which could be used by teachers, counselors, and students to obtain accurate information for students in their quest of an educational path toward a career. Without Marie's efforts, this manual would not exist. We appreciate the work that she has done to put the articulation process into a format that is clear, precise, and easy to use. In addition to designing the manual, Marie served as the faculty coordinator during 1988-89. She personally contacted and worked with the individual teachers from each participating school.

Special recognition must go to two business students at American River College, who helped produce this document. Karen Rickard spent many hours typing and revising the first edition of the manual. Her desire to produce a professional looking manual was so great that she spent extra time learning to use both WordPerfect and Pagemaker. Gwen Warrener, who is very proficient in using WordPerfect 5.0, helped us with this second edition. Her ability to convert files and to reformat documents is especially appreciated. Once printed, Marnell Nicknig and the duplicating department staff were able to reproduce and assemble this manual.

We appreciate the creative talents of Karen Treanor for her design of the cover and logo. This design quickly communicates the recognizable message of the concept of 2 + 2 + 2 articulation and the interconnectivity of all the educational levels involved.

And special thanks must go to the instructors who participated in the project and made articulation a reality, not just an over-used word. Their efforts and dedication to improving articulation to the benefit of students is easily recognized through the manual. The individual names of these instructors are listed in the program sections in which they participated.

## FOREWORD

The 2+2+2 projects have enabled American River College to greatly expand its articulation with high schools, Regional Occupational Programs, adult schools, and universities. The continued success of this effort will fall on the shoulders of those classroom instructors who are willing to add the responsibilities of articulation to their regular teaching load. These instructors seldom have adequate time or clerical support to prepare materials needed for such projects; and, yet, they are willing to participate to benefit their students and programs.

One of the products of our projects that we deemed valuable to the continued success and growth of articulation was a set of materials for each articulated program. These materials would provide for both the general and unique requirements of each program. Further, we wanted to provide a book to which we could add sections for new programs. What evolved was this collection of materials for each of the articulated programs.

A complete set of working papers has been provided for each articulated program. Since each section is independent of others, some pages have been duplicated. Page numbers were assigned in blocks to permit insertion of additional materials. The independence for each subject area enhances articulation because individual pages or entire sections can be duplicated and distributed, revised, or new materials added as needed.

This is the second edition of this manual. Over 800 copies of the first edition were distributed throughout the state. This manual was adopted as the campus model for American River College's articulation efforts in areas such as mathematics, communications, behavioral/social sciences, art/home economics, and science. In addition, other secondary schools and community colleges throughout the state have received copies to assist them in organizing their procedures. We are pleased that this manual has been helpful to so many.

We knew that changes and refinements would take place. In this edition, we have made minor changes to forms, added new programs, and updated the curriculum and staff sections. The desktop publishing features of WordPerfect 5 and the laser printer will make future revisions very easy.

We appreciate the efforts of all who have shared ideas, made suggestions, and prepared materials. Our special thanks go to those teachers who have been involved in the articulation effort at American River College.

Terrence F. Rieger, Dean, Business Area
1988-1990 Project Director
Myron Nadolski, Dean, Technical/Vocational Area
1987-1988 Project Director

## USING THIS BOOK

This book was put together with the intent that it be a working document that could be used for a number of purposes. The format of self-contained sections duplicated on one side should provide a high degree of flexibility and usefulness.

The organization focuses upon individual programs, and each program section contains a full set of working papers and other information about specific programs. How can this book be used?

- Program sections can be duplicated wholly or partially for annual review by participants and industry advisory committees.
- Program sections can be duplicated wholly or partially for orientation of new or prospective participants, administrators, and counselors.
- Forms can be duplicated or printed to process agreements and certification of students.
- Competency lists can be used to provide information to high school/ROP/adult school instructors for curriculum planning, assessing instructional materials and equipment, and counseling of students.
- The book may be used as a reference by school counselors in advising students, particularly about articulated program requirements.
- Sections of the book may be duplicated and distributed to high school/ROP/adult school students and their parents to make them aware of the articulation of specific classes, available degree and certificate programs, transferability of courses, and program requirements.
- Sections of the book may be duplicated for presentations on articulation at professional meetings and conferences.
- Information relating to specific programs--such as career, employment, educational opportunities, etc.--can be conveniently added to the supplemental section for each program.

Since this book was designed to serve a wide variety of programs and purposes, changes will occur. When they do, we ask that you substitute the old pages with the new ones to keep your reference current.

Terrence F. Rieger, Dean, Business Area
1988-1990 Project Director
Myron Nadolski, Dean, Technical/Vocational Area
1987-1988 Project Director

# INTRODUCTION

# ARTICULATION

## A PARTNERSHIP FOR EXCELLENCE

The phrase, a partnership for excellence, expresses succinctly the objective of articulation--the coordination of all resources to provide the very best education for students. Articulation provides an excellent opportunity to develop programs and courses of study that enable a student to move from the secondary level to the collegiate level in less time, at lower cost, and with less duplication of content. In addition, the resources of the various institutions are better utilized.

Those who participate in the education of our workforce, industry included, are being challenged by technology. The demand is for occupations that require more years of education, stronger basic skills, and higher levels of technical competence. One way to maximize the available resources is to improve educational efficiency. Articulation offers a viable approach toward this goal.

Over half of all California students begin their collegiate education at the community college. In addition, a large segment of the workforce depends upon the community college for continuing education and upgrading of skills. Thus, it is appropriate that the community college be the center link in the articulation effort.

American River College welcomes the opportunity to work with area high schools, Regional Occupation Programs, adult schools, universities, and business and industry in this partnership.

### ARTICULATION DEFINED

Articulation is defined as a planned process linking two or more educational systems to help students make a smooth transition from the secondary level of occupational or academic training to the two-year or four-year post-secondary level without experiencing a delay or duplication of learning.

Articulation is generally considered as a systematic process that will permit students to move from one course, program, or educational level to the next without loss of time or resources.

### BENEFITS FOR STUDENTS

- Reduces duplication of effort and time, thus reducing costs for both the student and the college
- Allows students to receive college credit and/or advanced placement through effort and achievement at the high school, ROP or adult school level
- Encourages the setting of educational goals and the development of plans to achieve these goals
- Provides incentive for students to continue their education
- Encourages enrollment in high school, ROP, and college curricula
- Eases transition from high school to college

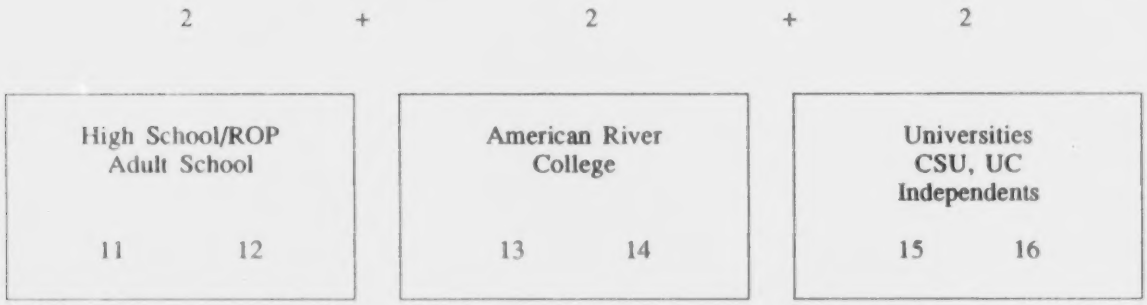
## BENEFITS FOR PROGRAMS

- Provides high school, ROP, and adult school instructors with first-hand knowledge of the community college and university programs
- Provides the college staff with first-hand knowledge of the high school, ROP, and adult school programs
- Establishes an integrated program to encourage continued education
- Provides for renewed cooperation, understanding, and mutual support among instructors
- Provides for more relevant and focused course content
- Provides the opportunity for more efficient use of equipment and facilities
- Provides the opportunity for sharing of training, equipment, staff, and facilities

## THE 2+2+2 CONCEPT

The 2+2 concept encourages cooperation between high schools and the community college to develop a four-year course of study leading to an Associate in Arts or Associate in Science degree.

The 2+2+2 concept extends articulation to include the four-year colleges and universities and a six-year course of study leading to a baccalaureate degree.



ARTICULATED PROGRAMS

## ARTICULATED PROGRAMS

Articulation at its simplest is a process which helps ensure that a course offered at one school is equivalent to a similar course in another school. The objective is to facilitate student movement from one institution to another. Of special importance is the coordination of certain secondary school courses to make sure they are equivalent to beginning counterparts at community colleges.

The electronics department at American River College began articulating classes in electronics in 1981. During 1987-1988, formal articulation was expanded to include the business area and other technical/vocational areas.

Articulation agreements are at the heart of the 2+2+2 program. The 2+2 concept encourages cooperation between high schools/ROP centers/adult schools and the community college to develop a four-year course of study leading to an AA degree. The 2+2+2 concept extends articulation to include four-year colleges and universities, for a six-year course of study leading to a baccalaureate degree.

The articulation of courses between the high schools, Regional Occupation Programs (ROP), adult schools, and American River College is very much a teacher-to-teacher effort. This approach is based on the premise that it is the teacher who is most influential in encouraging students to continue their education and it is the teacher who has the expertise to develop and teach competency-based content.

In 1989, Terry Rieger, then dean of ARC's Business Area, described ARC's approach to articulation as

> . . .teacher to teacher, because we work at the faculty level first, and then course by course. Many articulation programs are created at the top administrative level. Often the troops down the line are either unaware of the plan, or don't understand how it relates to them. The result is very little articulation. Ours is different; we get results.

Because ARC's electronics program began establishing articulation agreements with high schools in 1981, the college had a working model on which to base a larger-scale project. Funding for expansion into business and other technical/vocational programs has come from pilot project grants from the Chancellor's Office of the California Community Colleges and the State Department of Education's Vocational Education unit. The grants enabled the college to develop procedures and implementation plans that have been adopted for use by the campus instructional departments.

## DEVELOPING PROGRAMS

Developing articulated programs is a joint effort by all segments. At American River College, a team leader was assigned to each subject area. Currently, all team leaders are community college teachers, but in subsequent years some leaders may be high school teachers as well.

Team leaders review the course outlines and the competencies in each subject, outline what is important, why it is important, and recommend some teaching methodologies, so that the secondary teachers can teach with the college course outline firmly in mind. Where needed, training of secondary staff is done by the team leader.

One tool in assuring that students are indeed learning at the college level is the challenge exam. This provides a standard for the secondary teacher to work toward. It also means that secondary schools share in the same standards.

Students who successfully challenge through an exam have a choice--to choose advanced placement or to accept the credit for the course being challenged. Secondary school students cannot get credit for the challenged class until they have completed 12 units at ARC with a 2.0 grade point average or better. In addition, the students must claim the credit within two years of taking the challenge exam.

The results so far have been encouraging. Myron Nadolski, Dean, Technical/Vocational Area at American River College says

> Secondary teachers teach their classes to industry standards, as we do, and their students benefit from it. We benefit because we get the best of the high school students here at ARC, and the universities benefit because they get the best we have to offer. It's a good deal all around.

## ARTICULATION COUNCIL

In recognition of the importance of this process, ARC formed an Articulation Council made up of 12 members of the ARC administration and 12 from the administration of the San Juan and Grant school districts, including the two superintendents. The group's first meeting was in October, 1988, and addressed, among other subjects, the coordination of requirements for English 1A, campus visits by seventh and eighth grade students, and helping at-risk students with college potential.

By May of 1989, the Articulation Council had done so well that the college was being asked by several other school districts to include them as well. The first addition was Center Unified School District.

Committees were formed of both high school and college faculty in the areas of math, science, visual arts, home economics, business, industrial technology, and foster youth/independent living skills. These committees began examining ways in which the college and schools could improve linkages between faculties and align curriculum into a learning sequence.

One objective was to increase the number of high school students taking courses that would make them eligible for advanced placement by means of a competency exam. This had already been accomplished in some cases in both the business and technical/vocational areas. For example, equivalency tests in several business subjects were first administered to a group of high school students in May 1988. The college was also looking more closely at the possibility of providing community college classes on the high school campuses.

In the spring of 1990 the link with the California State University, Sacramento, was strengthened by adding a representative from CSUS to the Articulation Council.

## RELATED ACTIVITIES

A related activity begun in 1989 was a middle school visitation program, which was a direct result of the cooperation established through the Articulation Council. For many of these youngsters, this program marks their first time on a college campus. The program includes a campus tour, meetings with students and staff, and classroom experiences in science, art, and business.

Also begun in 1989 was a summer institute for at-risk students--students identified by their schools as college potential, but at risk of dropping out of high school. The three-week program includes an orientation to college, study skills, computer familiarization and credit courses in reading, writing, and math.

Still another result of the college's increasingly close ties with local school districts has been an innovative program of hiring high school counselors as part-time counselors for the college. This not only gives ARC well-trained staff for evening and summer hours, but provides the college with de facto ARC representatives at the high schools. An article about this program appeared in the Journal of the American Association of Junior and Community Colleges.

## ARTICULATION MANUAL

One of the results of the 2+2+2 grants has been the development of this manual, which can be used to train teachers and counselors and later used by them in working with individual students. It also serves as a basic articulation reference.

The development of this manual involved input from a number of high school/ROP/adult school and college instructors. It was designed as a series of standalone sections to house program-specific materials.

Information about each articulated program is arranged in three parts, as follows:

1. A brief description of the college program, including degree and certificate programs available, core requirements, articulation with universities, etc.

2. A description of the articulation process including general agreements and procedures, course competencies, and the forms used in the articulation process.

3. A section for supplemental information pertinent to the particular program.

As additional programs are articulated in the future, information about them can be inserted into the manual. If an existing program is revised, the section can be replaced. And, as materials are supplied for program areas, the pages can be inserted in the supplemental section.

ARTICULATION
A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

# ART AND HOME ECONOMICS

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

# ART/HOME ECONOMICS

## EARLY CHILDHOOD EDUCATION

American River College has had articulation agreements in Early Childhood Education with the San Juan Unified School District since September, 1982, with the Grant Joint Union High School District since May, 1985, and with the Folsom Cordova School District since February, 1982.

Work is in progress to update and formalize the procedures.

# ARTICULATION
## A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

Technical Vocational Area

# AUTOMOTIVE TECHNOLOGY

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

## AUTOMOTIVE TECHNOLOGY

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# THE AUTOMOTIVE TECHNOLOGY PROGRAM

The Automotive Technology Program is designed to provide students with the knowledge and skills needed for employment as automotive technicians in dealerships and independent shops. This training provides students with the latest in industry-supported instruction and equipment.

Students who plan to earn a four-year degree often complete their first two years at American River College and transfer to a four-year college or university. The skills learned in the automotive technology program allow the student to become financially self-sufficient by working for various automotive repair or parts facilities while earning their degree. Many of the courses required in the two-year degree can also be applied toward the four-year degree.

In this section you will find a brief summary of the ARC Automotive Program. For more complete information, we urge you to consult the college catalog and a guidance counselor.

## THE ASSOCIATE IN ARTS DEGREE

To earn an Associate in Arts degree in automotive technology, all students are required to take 48 units of automotive classes and 21 units of general education classes. This is with the assumption the student meets all the graduation requirements as listed in the current catalog.

## CERTIFICATES OF ACHIEVEMENT

Students may earn a Certificate of Achievement in Automotive Collision Technology or in Automotive Technology by completing the core and specialization requirements (see next page).

## THE AUTOMOTIVE TECHNOLOGY PROGRAM

Students who plan to earn a degree in either Automotive Collision Technology or in Automotive Technology will complete the following core requirements, the specialization requirements, and the college's general education requirements.

### AUTOMOTIVE CORE

| Course No. | Course Title | Units |
|---|---|---|
| Mechanics 54A | Heating and Air Conditioning | 2 |
| Mechanics 56A | Suspension and Steering | 2 |
| Mechanics 57 | Braking Systems | 2 |
| Mechanics 58 | Electrical Systems | 4 |
| Mechanics 75 | Math for Mechanics | 3 |

### SPECIALIZATION REQUIREMENTS

#### AUTOMOTIVE COLLISION TECHNOLOGY
(Auto Body)

| | | |
|---|---|---|
| Management 52A | Small Business Essentials | 3 |
| Mechanics 50 | Auto Body Welding | 3 |
| Mechanics 62A | Automotive Collision Technology | 4 |
| Mechanics 62B | Automotive Collision Technology | 4 |
| Mechanics 63A | Automotive Collision Technology | 10 |
| Mechanics 63B | Automotive Collision Technology | 10 |

#### AUTOMOTIVE TECHNOLOGY
(Mechanics)

| | | |
|---|---|---|
| Mechanics 54B | Heating and Air Conditioning Systems | 2 |
| Mechanics 56B | Suspension and Steering Systems | 2 |
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| | | |
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## THE TRANSFER PROGRAM

The American River College Automotive Department has an articulation agreement with California State University, Chico. The following automotive classes will transfer to Chico.

| ARC | Units | CSU Chico | Units |
|---|---|---|---|
| M-54A&B | 2 ea. | Tech Electives | |
| M-56A&B | 2 ea. | Tech Electives | |
| M-57 | 2 | Tech Electives | 12 |
| M-58 | 4 | Elective | |
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| M-70 | 4 | Electives | 6 |
| M-71A&B | 2 ea. | | |
| M-80A&B | 4 ea. | ITEC 30 | 4 |
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# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

## AMERICAN RIVER COLLEGE

## THE ARTICULATION PROCESS

## AUTOMOTIVE TECHNOLOGY DEPARTMENT

### PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by examination and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy on Credit by Examination.

### GENERAL AGREEMENTS

1. Any secondary instructor may request that a course or program be considered for articulation. The contact person for any general questions about the automotive technician courses at American River College is the Dean, Technical Vocational Area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the District, or to designate a school-site coordinator.

2. American River College may initiate articulation with a District instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Technical Vocational Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a challenge examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the challenge exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor.

9. The College will invite District articulation instructors to be a part of the American River College subject-area Advisory Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

11. Participating instructors at the secondary and post-secondary levels will formally adopt and teach from a list of ASE competencies (task list) based on job task requirements. Criteria for the task list will be 80% HP task items and instructor recommendation.

12. American River College will provide an ASE examination packet to participating high schools on an annual basis for Mechanics 51 (3 units), 52 (1 unit), 54A (2 units), and 57 (2 units), for a maximum of 8 units.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Technical Vocational Area, at American River College. Forms will be available from the American River College Technical Vocational Area.

2. The Dean, Technical Vocational Area, will appoint an ARC instructor, who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the existing entry-level curriculum at American River College.

   d. Assist the secondary instructor in making any curriculum adjustments, evaluating equipment/laboratory needs, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Technical Vocational Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. When the student has successfully completed requirements indicated for articulation and has passed the challenge examination administered by the high school instructor, the student will receive certification from the College instructor. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded.

5. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a "C" or better grade average. Applications will be available in the Technical Vocational Area office.

6. American River College instructors and the secondary articulation instructors will review the articulation process annually.

Attachment: Subject Area Competencies

## COMPETENCIES

## MECHANICS 51: INTRODUCTION TO AUTOMOTIVE SERVICES

The student who elects to seek college credit for Mechanics 51 at American River College must pass the approved examination and have a recommendation by the high school instructor.

Mechanics 51 is a lecture class designed to give the student an overview of the development of the modern world automobile, its impact on society, available automotive career areas, a working knowledge of California's Bureau of Automotive Repair laws as they apply to automotive service, and related maintenance and purchasing information.

The subject matter outline is as follows:

1. History of the automobile from the conception through modern to future.
2. The impact of the automobile on society in terms of jobs and pollution.
3. Automotive career exploration from lubeman to dealership owner. Included are the non-traditional career opportunities.
4. This history and effectiveness of the Bureau of Automotive Repair laws as they apply to the technician, dealer, repair facility, and consumer.
5. Automotive construction, nomenclature, minor maintenance and service schedules.
6. How to maintain new and used cars. What to look for and what to expect.

## COMPETENCIES

## MECHANICS 52: GENERAL AUTOMOTIVE MAINTENANCE

The student who elects to seek college credit by examination for Mechanics 52 at American River College must be able to perform the following tasks:

1. Describe the principles of automotive service procedures.
2. Identify basic hand tools and describe their usage.
3. Locate and change the oil, oil filter, fuel filter, and air filter as required by the service manuals.
4. Replace and set the tension of the fan belts.
5. Replace cooling system hoses and check antifreeze level.
6. Check and top off all fluid levels with the manufacturer's recommended fluids.
7. Inspect brake pads and shoes to determine wear limits.
8. Remove, clean/replace, and reinstall spark plugs.
9. Set ignition timing.

## COMPETENCIES

## MECHANICS 54A: AUTOMOTIVE HEATING AND AIR CONDITIONING SYSTEMS

The student who elects to seek college credit by examination for Mechanics 54A at American River College must be able to perform 80% of the high priority (HP) items on the ASE (Automotive Service Excellence) Heating and Air Conditioning Systems Task List. This list is supplied to and signed off by the high school instructor.

(See list beginning next page.)

**AMERICAN RIVER COLLEGE**

**AUTOMOTIVE TECHNOLOGY**

**Heating and Air Conditioning Specialist**
**HP Task List**

| | Task | Instructor Sign./Date |
|---|---|---|
| **A/C SYSTEM DIAGNOSIS AND REPAIR** | | |
| 1. | Diagnose unusual operating noises. | HP |
| 2. | Performance test A/C system. | HP |
| 3. | Diagnose A/C problems by R-12 flow past sight glass. | HP |
| 4. | Diagnose A/C problems using pressure gauge readings. | HP |
| 5. | Diagnose A/C problems by visual/ touch proceedures. | HP |
| 6. | Leak test A/C. Determine needed repairs. | HP |
| 7. | Partially charge A/C system. | HP |
| 8. | Purge A/C system of excessive R-12 to proper charge. | HP |
| 9. | Discharge A/C system of R-12 | HP |
| 10. | Evacuate A/C system. | HP |
| 11. | Charge A/C system with R-12 liquid/vapor. | HP |
| 12. | Inspect/add oil to A/C system. | HP |
| **A/C SYSTEM COMPONENT DIAGNOSIS AND REPAIR** | | |
| 1. | Diagnose pressure protection devices. | HP |
| 2. | Inspect/replace pressure protection devices. | HP |
| 3. | Inspect/adjust/replace compressor belts/pulleys. | HP |
| 4. | Inspect/test/service/replace compressor clutch components. | HP |

| | Task | | Instructor Sign./Date |
|---|---|---|---|
| 5. | Inspect/add oil to compressor. | HP | |
| 6. | Inspect/test/replace compressor mountings. | HP | |
| 7. | Inspect/replace compressor shaft seal. | HP | |
| 8. | Inspect/replace compressor valves/ gaskets. | HP | |

**EVAPORATOR, RECEIVER/DRIER, CONDENSER, ETC.**

| | | | |
|---|---|---|---|
| 1. | Diagnose moisture problems | HP | |
| 2. | Flush components/hoses. | HP | |
| 3. | Inspect/repair/replace mufflers/ hoses/lines/fittings/seal | HP | |
| 4. | Inspect condenser/clean/straighten fins. | HP | |
| 5. | Inspect/test replace condenser mountings. | HP | |
| 6. | Inspect/replace receiver/drier. | HP | |
| 7. | Inspect/replace accumulator/drier. | HP | |
| 8. | Inspect/test/replace expansion valve. | HP | |
| 9. | Inspect/test/replace orifice tube | HP | |
| 10. | Inspect/test/replace evaporator. | HP | |
| 11. | Inspect/repair evaporator water drain. | HP | |
| 12. | Inspect/test/replace evaporator pressure control systems/devices. | HP | |
| 13. | Inspect/replace service valves. | HP | |
| 14. | Diagnose problems causing the pressure relief device to release. | HP | |
| 15. | Inspect/replace high pressure relief device. | HP | |

| | Task | Instructor Sign./Date |
|---|---|---|

**HEATING AND COOLING SYSTEMS DIAGNOSIS AND REPAIR**

| | | |
|---|---|---|
| 1. | Diagnose too little/much heat and poor temperature control problems of heater/vent system. | HP |
| 2. | Diagnose window defogging problems | HP |
| 3. | Perform cooling system tests. | HP |
| 4. | Inspect/replace cooling/heater hoses/belts. | HP |
| 5. | Inspect/test/replace radiator/ pressure cap expansion tank/water pump. | HP |
| 6. | Inspect/test/replace themostat/ by-pass/housing. | HP |
| 7. | Inspect coolant/drain/flush/refill. | HP |
| 8. | Clean/inspect/test/replace fan/ fan clutch/(both electrical/ mechanical) fan shroud. | HP |
| 9. | Inspect/test/replace heater coolant control valve (manual/ vacuum/electrical). | HP |
| 10. | Inspect/flush/replace heater core. | HP |

**ELECTRICAL CONTROL UNITS DIAGNOSIS AND REPAIR**

| | | |
|---|---|---|
| 1. | Diagnose electrical controls of heater/A/C. | HP |
| 2. | Inspect/test/repair/replace A/C-heater blower motors/resistors/ switches/relays/wiring/protection devices. | HP |
| 3. | Inspect/test/repair/replace A/C compressor clutches/relays/wiring/ sensors/switches/protection devices. | HP |
| 4. | Inspect/test/repair/replace/adjust A/C controlled engine idle systems. | HP |
| 5. | Inspect/test/repair/replace/adjust A/C compressor throttle-controlled cut-offs. | HP |

| | Task | Instructor Sign./Date |
|---|---|---|
| 6. | Inspect/test/repair/replace engine cooling/condenser cooling fan motors relays/switches/sensors/wiring/ protection devices. | HP |

**VACUUM/MECHANICAL**

| | | |
|---|---|---|
| 1. | Diagnose vacuum/mechanical heating/A/C controls. | HP |
| 2. | Inspect/test/service/replace A/C-heater control panel assembly. | HP |
| 3. | Inspect/test/adjust/replace A/C-heater control cables/linkages. | HP |
| 4. | Inspect/test/replace A/C-heater vacuum control switches/hoses. | HP |
| 5. | Inspect/test/adjust/replace A/C-heater vacuum motors. | HP |
| 6. | Inspect/test/replace A/C-heater vacuum reservoir/check valve/ restrictors. | HP |
| 7. | Inspect/test/repair A/C-heater ducts/doors/hoses/outlets. | HP |

**AUTOMATIC AND SEMI-AUTOMATIC TEMPERATURE CONTROLS**

| | | |
|---|---|---|
| 1. | Inspect/test/replace ambient/in-car sensors. | HP |
| 2. | Inspect/test/replace power servo. | HP |
| 3. | Inspect/test/replace coolant temperature blower control system. | HP |
| 4. | Inspect/test/replace heater valve/ controls. | HP |
| 5. | Diagnose/repair temp. control problems. | HP |
| 6. | Diagnose/repair blower system problems. | HP |
| 7. | Diagnose/repair air distribution problems. | HP |

| | | |
|---|---|---|
| 8. | Inspect/test/replace electric/ vacuum motors/solenoids/switches. | HP |
| 9. | Inspect/test/replace ATC control panel. | HP |

## COMPETENCIES

## MECHANICS 57: AUTOMOTIVE BRAKING SYSTEMS

The student who elects to seek college credit by examination for Mechanics 57 at American River College must be able to perform 80% of the high priority (HP) items on the ASE (Automotive Service Excellence) Brake Task List. This list is supplied and signed off by the high school instructor.

(See list beginning next page.)

AMERICAN RIVER COLLEGE

AUTOMOTIVE TECHNOLOGY

**Brake Specialist**
**HP Task List**

| | Task | Instructor Sign./Date |
|---|---|---|
| **HYDRAULIC SYSTEM DIAGNOSIS AND REPAIR** | | |
| 1. | Diagnose poor stopping/dragging caused by master cylinder problems. | HP |
| 2. | Diagnose poor stopping/dragging/ high/low pedal/hard pedal caused by problems in a step bore master cylinder/internal valves. | HP |
| 3. | Measure/adjust pedal pushrod length. | HP |
| 4. | Check master cylinder for internal/external leaks and proper operation. | HP |
| 5. | R&I and bench bleed master cylinder. | HP |
| 6. | Diagnose poor stopping/pulling/ dragging caused by problems in the brake fluid/lines/hoses. | HP |
| 7. | Inspect brake lines/fittings for leaks/dents/kinks/rust/cracks/wear; tighten loose fittings. | HP |
| 8. | Inspect flexible brake hoses for leaks/kinks/cracks/bulging/wear; tighten loose fittings/supports. | HP |
| 9. | Replace brake lines (double flare and ISO types) hoses/fittings/supports. | HP |
| 10. | Select/handle/store/install brake fluids (including silicone fluids). | HP |
| 11. | Diagnose poor stopping/pulling/ dragging caused by problems in the hydraulic system valves. | HP |

| | Task | Instructor Sign./Date |
|---|---|---|
| 12. | Inspect/test/replace metering/ proportioning/pressure differential/combination valves. | HP |
| 13. | Inspect/test/replace/adjust load/ height sensing proportioning valves. | HP |
| 14. | Inspect/test/replace brake warning light switch/wiring. | HP |
| 15. | Re-set brake differential valve. | HP |
| 16. | Bleed (manual/pressure/vacuum/ surge) and/or flush hydraulic system. | HP |
| 17. | Check/adjust master cylinder fluid levels. | HP |

**DRUM BRAKE DIAGNOSIS AND REPAIR**

| | | |
|---|---|---|
| 1. | Diagnose poor stopping/pulling/ dragging caused by problems in the drum brake assembly. | HP |
| 2. | Diagnose poor stopping/noise/ pulling/dragging/pedal pulsation in the drum brake mechanical assembly. | HP |
| 3. | Remove/clean/inspect/measure brake drums. | HP |
| 4. | Mount brake drum on lathe and machine. | HP |
| 5. | Remove/clean/inspect/brake shoes/ linings/springs/pins/clips/levers/ adjusters/self adjusters/other related hardware. | HP |
| 6. | Clean/remove loose dirt/rust/scale on brake backing plates using proper safety procedures. Inspect/ R&I if necessary. | HP |
| 7. | R&I wheel cylinders. | HP |
| 8. | Disassemble/clean wheel cylinder assembly. Inspect parts for wear/ rust/scoring/damage. Hone cylinder/ replace all cups/boots/parts. | HP |

| | Task | | Instructor Sign./Date |
|---|---|---|---|
| 9. | Lubricate/brake shoe support pads on backing plate/adjuster/self adjuster/other brake hardware. | HP | |
| 10. | Determine correct shoe application | HP | |
| 11. | Install brake shoes and related hardware. | HP | |
| 12. | Adjust brake shoes/reinstall drums hubs/wheel bearings. | HP | |
| 13. | Reinstall wheel/torque lug nuts make checks and final adjustments. | HP | |

**DISK BRAKE DIAGNOSIS AND REPAIR**

| | | | |
|---|---|---|---|
| 1. | Diagnose poor stopping/pulling dragging caused by problems in the disc caliper assembly. | HP | |
| 2. | Diagnose poor stopping/noise/ pulling/grabbing/dragging/pedal pulsation caused by problems in the disc brake mechanical assembly. | HP | |
| 3. | Remove caliper assembly/clean/ inspect for leaks/damage to caliper housing. | HP | |
| 4. | Clean/inspect caliper mountings/ slides for wear/damage. | HP | |
| 5. | Remove/clean/inspect pads and retaining hardware. | HP | |
| 6. | Remove/disassemble/clean caliper assembly. Inspect parts for wear/ rust/scoring/damage. Replace all seals/boots/worn parts. | HP | |
| 7. | Reassemble caliper/install. | HP | |
| 8. | Clean/inspect/measure rotor with dial indicator/micrometer. | HP | |
| 9. | Remove rotor/mount on lathe/ machine. | HP | |
| 10. | Determine correct brake pad application. | HP | |

| | Task | | Instructor Sign./Date |
|---|---|---|---|
| 11. | Install pads/calipers/hardware. | HP | |
| 12. | Adjust calipers/integrated parking brakes. | HP | |
| 13. | Fill master cylinder/seat pads/ inspect for leaks. | HP | |
| 14. | Reinstall wheel/torque lug nuts/ make final adjustments. | HP | |

**POWER ASSIST UNITS DIAGNOSIS AND REPAIR**

| | | | |
|---|---|---|---|
| 1. | Test pedal free travel with/ without engine running to check power booster operation. | HP | |
| 2. | Check vacuum supply (manifold/aux pump) to vacuum-type power booster operation. | HP | |
| 3. | Inspect vacuum-type power booster for vacuum leaks/inspect check valve. | HP | |
| 4. | Inspect and test hydro-boost system and accumulator for leaks/ proper operation. | HP | |

**MISCELLANEOUS DIAGNOSIS AND REPAIR**

| | | | |
|---|---|---|---|
| 1. | Diagnose wheel bearing noises/ shimmy/vibration. | HP | |
| 2. | Remove/clean/inspect/repack/ replace/pack wheel bearings/replace seals/adjust bearings. | HP | |
| 3. | Check parking brake system/inspect cables/parts for wear/rusting/ binding/corrosion. Clean/replace parts as necessary. | HP | |
| 4. | Adjust/check parking brake assembly. | HP | |
| 5. | Test parking brake indicator light/switch/wiring. | HP | |

| | Task | | Instructor Sign./Date |
|---|---|---|---|
| 6. | Test/adjust/repair/replace stop light switch/wiring. | HP | |
| 7. | Check operation of anti-skid braking systems/adjust/repair to specs. | HP | |

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**TECHNICAL VOCATIONAL AREA, AUTOMOTIVE TECHNOLOGY DEPARTMENT**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

District No. High School Course Name

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

**AMERICAN RIVER COLLEGE**

**and**

**XX HIGH SCHOOL**

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course:

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Technical Vocational Area |
| Date | Date |
| | |
| Date | |

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, TECHNICAL VOCATIONAL AREA

## AUTOMOTIVE TECHNOLOGY DEPARTMENT

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____ - - _____
Last First MI

ADDRESS_____ CITY_____ ZIP_____

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____ YEAR OF BIRTH_____ SEX ____Female ____Male

ETHNICITY: Please check one.

DRIVER'S LICENSE NUMBER

_____

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for _____, ____ Units.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**TECHNICAL VOCATIONAL AREA**

## CHALLENGE EXAM CERTIFICATION

---

PART I: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____
Last First MI

ADDRESS_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____

I am applying for Advanced placement only_____ Advanced placement and credit_____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student took the advanced placement examination

for _____ on _____ 19__.

_____ The student passed the examination with a score of _____.

_____ The student did not pass the examination. Score _____.

_____
ARC Articulation Instructor

_____
Date

Copies to: Student
High School Instructor
Dean, Technical Vocational Area

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

OTHER

**AMERICAN RIVER COLLEGE**
**HIGH SCHOOL/REGIONAL OCCUPATIONAL PROGRAM/ADULT SCHOOL**

**1989-1990 ARTICULATION AGREEMENTS**

**AUTOMOTIVE TECHNOLOGY DEPARTMENT**

| Instructor | School | Program |
|---|---|---|
| David S. Inch | Foothill High School | Auto Body |
| Richard G. Kreutzer | Rio Americano High School | Auto Body |
| William W. Bertram | Sacramento ROP | Auto Body |
| Richard P. Stokes | 49er ROP | Automotive Technology |
| Richard Kajihara | Foothill High School | Automotive Technology |
| Robert Hollingsworth | Marconi Technical | Automotive Technology |
| James Merkle | Shasta Trinity ROP | Automotive Technology |
| John J. Chocholak | Ukiah High School | Automotive Technology |
| Michael Lateano, Principal | Skills and Business Education Center | Automobile Technology |

ARTICULATION
A Partnership for Excellence
High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

# BEHAVIORAL AND SOCIAL SCIENCES

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

## BEHAVORIAL/SOCIAL SCIENCES

In progress . . .

# ARTICULATION
## A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

# BUSINESS AREA

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

**BUSINESS**

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## THE BUSINESS PROGRAM

The business program is designed to prepare students with the knowledge and skills needed for employment in business or government positions and/or preparation for advanced study in business.

Students who want specialized training in business can choose from 19 different concentrations, or majors. Many of these concentrations offer the opportunity to earn either a degree or a certificate.

Students who plan to earn a four-year degree often complete their first two years at American River, then transfer to a four-year college or university. The courses required for the four-year degree can also be applied toward the AA degree.

In this section you will find a brief summary of the ARC business program. For more complete information, we urge you to consult the college catalog.

## THE ASSOCIATE IN ARTS DEGREE PROGRAMS

To earn an Associate in Arts degree in business, all students are required to complete a business core of 14-18 units (depending upon keyboarding proficiency and the accounting and computer information science requirements for a given concentration), the concentration requirements, and the college's graduation requirements. American River College offers degrees in 19 areas of study, called concentrations, as follows:

Accounting Paraprofessional
Advertising and Sales Promotion
Business--General Office
Business--Secretarial
Business--Secretarial, Legal
Business--Secretarial, Medical
Computer Information Science--Data Processing
Computer Information Science--Microcomputer Applications
General Business
General Business - Transfer
Management--Business Option
Management--Government Option
Management--Industry Option
Management--Organizational Logistics Option
Management--Total Quality Management (Deming Method)
Marketing
Real Estate
Retail Management
Small Business Operation

# AMERICAN RIVER COLLEGE

## BUSINESS AREA

Business Core for Degree Programs
1990-1991

The following core classes are required of all business degree candidates. If an option is listed, the student should check the required classes for a concentration to determine which class meets the degree requirement.

| Course No. | Course Title | Units |
|---|---|---|
| Accounting 60* | Fundamentals of College Accounting | 3 |
| or | or | |
| Accounting 1A* | Financial Accounting | 4 |
| Business 1 | Beginning Keyboarding/Formatting or proficiency exam to demonstrate ability to touch type 25 wpm | 1-0 |
| Business 20** | Introduction to Business | 3 |
| Business 16 | Law and Society | 3 |
| or | or | |
| Business 18A* | Business Law | 3 |
| Business 59* | Business Economics | 3 |
| or | or | |
| Economics 1A* | Principles of Economics (Macroeconomics) | 3 |
| Computer Information Science* | CIS3 or BUS 9 or courses in computer familiarization, applications, or programming to equal a minimum of 3 units (e.g., any CIS class, BUS 11, or ACCTG 5, 6) | 3 |

*Course option defined for concentration. See Requirements for Degree under specific concentration.

**Business 20 required for all degree programs except General Business Transfer, Management--Organizational Logistics Option, Management--Government Option, and Management--Total Quality Management Option.

## CERTIFICATE OF ACHIEVEMENT

Certificate programs have been developed with the assistance of business and industry advisory committees to provide vocational training for students who are not seeking a degree. Many of the courses required for a certificate also apply toward a degree. To earn a Certificate of Achievement, the student must complete the courses prescribed for the certificate program. American River College offers certificates in 15 business areas, as follows:

Accounting Paraprofessional
Business--Administrative Secretary
Business--General Office
Business--Secretarial
Business--Secretarial, Legal
Business--Secretarial, Medical
Business--Word/Information Processing
Management--Business Option
Management--Government Option
Management--Industry Option
Management--Organizational Logistics Option
Management--Total Quality Management (Deming Method)
Real Estate
Retail Management
Small Business Operation

The certificate is designed to be completed in approximately one year, and the courses required are designed to provide job skills. A student who earns a certificate is not required to complete the college's general education requirements.

## THE TRANSFER PROGRAM FOR BUSINESS MAJORS

American River College has a strong transfer program in business. The college provides the classes needed to fulfill both the general education and the business core requirements for those who plan to transfer to the university level for the baccalaureate degree.

The college has articulation agreements with the University of California and the California State University systems, as well as a number of private colleges and universities. Additional information is available in the Transfer Center, located in the Counseling office.

In addition to the breadth (general education) requirements, business students are required to complete a business core as part of their lower division preparation. This core is not identical to the ARC core requirements and it is not identical for each campus. However, the requirements generally fall into the following categories and are met by completing the ARC courses listed (1988-89 course numbers used):

Mathematics

| | |
|---|---|
| Math 42 | Finite Mathematics |
| Math 43 | Calculus for Business and Economics |
| Statistics 1 | Introduction to Probability and Statistics |

NOTE: University of California campuses generally require a calculus series.

**High School Preparation**: Algebra I and II and Geometry required; Math Analysis (Trigonometry) highly recommended.

Accounting

| | |
|---|---|
| Accounting 1A | Principles of Accounting (Financial) |
| Accounting 1B | Principles of Accounting (Managerial) |

**High School Preparation**: Accounting recommended

Economics

| | |
|---|---|
| Economics 1A | Principles of Economics (Macro) |
| Economics 1B | Principles of Economics (Micro) |

**High School Preparation**: A minimum of Algebra I

Business Law

| | |
|---|---|
| Business 18A | Business Law |

Computer Science

| | |
|---|---|
| Computer Information Science 3 | Introduction to Computer Information Science |
| and | |
| Computer Information Science 30A* | Computer Programming in BASIC |

NOTE: Some colleges require Computer Information Science 1, Computer Familiarization, or applications software, such as word processing, spreadsheet, database, and operating systems.

*Students interested in majoring in management information systems (School of Business) are required to know additional languages, such as PASCAL or C. Students who plan to major in computer science generally focus on FORTRAN, PASCAL, and COBOL. Computer science majors are required to complete a college-level physics series.

**High School Preparation**: A strong mathematics background is important for any programming language. Take a programming language if your high school offers a class. Computer science majors should complete physics. Keyboarding (typing) by touch is essential.

Foreign Language

Fluency in a foreign language is required for those majoring in international business.

**High School Preparation**. Three years of one language.

Careful preparation in high school, following the recommended preparation for the CSU or UC systems, will reduce the time spent meeting the transfer requirements. However, those students who have not met these requirements can complete them at American River, then transfer upon completion.

Counselors from various colleges are at American River on a regular basis to consult with students. The Transfer Center can provide information on specific campuses.

Samples of some of the articulation agreements with specific campuses follow. All business classes which transfer to all campuses of the CSU and UC system are labeled in the college catalog. In addition, some classes not identified transfer to specific campuses for particular courses of study.

Additional information is available in the Transfer Center.

CALIFORNIA STATE UNIVERSITY, SACRAMENTO
6000 J Street, Sacramento, CA 95819
(916) 278-6523

AMERICAN RIVER COLLEGE
4700 College Oak Drive, Sacramento
CA 95841 (916) 484-8011

# MAJOR PREPARATION AGREEMENT

| CSU, Sacramento, Major Preparation<br>The courses listed in this column are required CSU, Sacramento preparation for the Business major. | | American River Transfer Preparation<br>The courses listed in this column will be accepted in lieu of the CSU, Sacramento courses listed in the left column. | |
|---|---|---|---|
| **A. PRE-MAJOR CORE PREPARATION** | | | |
| ACCY 1, Accounting Fundamentals (CAN BUS 2) | (3) | Acct. 1A, Prin. of Accounting | (4) |
| ACCY 2, Managerial Accounting (CAN BUS 4) | (3) | Acct. 1B, Prin. of Accounting | (4) |
| MIS 5, Intro. Mgmt. Info. Systems (CAN BUS 6) | (3) | CIS 3, Intro., Comp. Info. Sci. AND<br>CIS 30A, Intro. to Programming in BASIC OR<br>CIS 33, FORTRAN Program.<br>(See Comment No. 5) | (2)<br>(1.5)<br>(3) |
| MIS 6, Business Statistics | (3) | Stat. 1, Intro. to Prob. & Stat. | (3) |
| OBE 18, Business Law (CAN BUS 8) (See Comment No. 1) | (3) | Bus. 18A, Business Law | (3) |
| Econ. 1A, Intro. to Macroeconomic Analysis (CAN ECON 2) | (3) | Econ. 1A, Principles of Economics | (3) |
| Econ. 1B, Intro. to Microeconomic Analysis (CAN ECON 4) | (3) | Econ. 1B, Principles of Economics | (3) |
| Math 22, Finite Mathematics | (3) | Math 42, Finite Math | (3) |
| Math 23, Calc. for Business & Econ. | (3) | Math 43, Calc. for Business & Econ. | (3) |

NOTE: This articulation agreement is effective June 1, 1987 through Summer, 1990.

COMMENTS:
1. Students selecting the Accountancy concentration are not required to take OBE 18.
2. A minimum of a "C" grade is required in each of the "pre-major" courses.
3. Competency in a foreign language is required for International Business majors.
4. Upon completion of the "pre-major," students must file a "change of major" form to declare a Business Administration major. Before being admitted to the major, transfer students must supply a copy of their transcripts) to the Degree Programs Center in the School of Business.
5. Effective Summer, 1988, DP 26 has been renumbered CIS 3, Csc 22 has been renumbered CIS 30A, and CSc 25 has been renumbered CIS 33.

Approved: Dennis J. Trovo 3-16-89 Helen Burnett 3-16-89

Dir., Degree Programs Center, School of Business — Date

Articulation Officer — Date

CALIFORNIA STATE UNIVERSITY, SACRAMENTO
6000 J Street, Sacramento, CA 95819
(916) 278-6523

AMERICAN RIVER COLLEGE
4700 College Oak Dr., Sacramemto,
CA 95841 (916) 484-8011

# MAJOR PREPARATION AGREEMENT

| CSU, Sacramento, Major Preparation<br>The courses listed in this column are required CSU, Sacramento preparation for the Computer Science major. | | American River Transfer Preparation<br>The courses listed in this column will be accepted in lieu of the CSU, Sacramento courses listed in the left column. | |
|---|---|---|---|
| **A. REQUIRED LOWER-DIVISION COURSES** | | | |
| C. Sc. 15, Programming Concepts and Methodology I | (3) | CIS 31, PASCAL | (3) |
| C. Sc. 16, FORTRAN Programming OR | (2) | CIS 33, FORTRAN Programming | (3) |
| C. Sc. 20, Programming Concepts & Meth. II (See Comment No. 2) OR | (3) | CIS 40, PASCAL with Data Structures | (4) |
| C. Sc. 30, COBOL Programming | (3) | CIS 36A,, COBOL Programming | (4) |
| C. Sc. 35, Assembly Language Prog. OR | (3) | CIS 35, Assembly Language Program. | (4) |
| C. Sc. 35A, Mircro-Computer Assem. Language Programming | (3) | No Equivalency | |
| **B. REQUIRED LOWER-DIVISION MATH PREP.:** | | | |
| Math 30, Calculus I (CAN MATH 18) | (4) | Math 6A, Calculus I | (4) |
| Math 31, Calculus II (CAN MATH 20) | (4) | Math 6B, Calculus II | (4) |
| Stat. 50, Intro. Prob. & Statistics | (4) | No Equivalency | |
| **C. REQUIRED LOWER-DIVISION PHYSICS PREP.:** | | | |
| Physics 11A, Mechanics (CAN PHYS 8) | (4) | Physics 4A, Mech., Solids. Fluids | (4) |
| Physics 11C, Electric.& Magnet. OR (CAN PHYS 12)(See Comment No. 2) | (4) | Physics 4B, Electricity & Magnetism | (4) |
| Physics 11B, Heat, Light, Sound (CAN PHYS 10) | (4) | Physics 4C, Heat and Light | (4) |
| **D. OTHER LOWER-DIVISION COMP.SCI. COURSES:** | | | |
| C. Sc. 1, Intro. to Computer Science | (3) | CIS 3, Intro., Data Processing AND<br>CIS 30A, Intro. to Computer Programming BASIC | (2)<br>(1.5) |
| C. Sc. 5, Personal Computing | (3) | CIS 1, Computer Familiarization<br>AND Select three from the following:<br>CIS 11A, 11B, 12A, 12B, 13A, 15A, 17A, 17B, 18A | (1) |
| C. Sc. 22, BASIC Programming | (2) | CIS 30A, Intro. Comp. Prog. BASIC<br>AND CIS 30B, Comp. Prog. BASIC | (1.5)<br>(1.5) |

COMMENTS: 1. Above curriculum effective Fall, 1988.
2. Students under 1988 or later catalogs are required to select C. Sc. 20 and Physics 11C.
3. Students may select one of five specialty areas: Database, Graphics/CAD/CAM, Numerical Computation, Software Engineering, or Systems Software.

Approved: Mary Jane Lee 10/14/88
Department Chair Date

Helena Bennett 10/14/88
Articulation Officer Date

OFFICE OF COORDINATOR OF UNDERGRADUATE PROGRAMS
College of Business
Glenn Hall 323
California State University, Chico
Chico, California - 95929 - 0021
Telephone No. (916) 895-4480

Fall 1989 - Spring 1990

## COMMUNITY COLLEGE COURSE EQUIVALENTS

AP - Approval Pending

Alameda thru Canyons

### CHICO - Lower Division Pre-Business Core Requirements - 21 units

| College | % Acct. 15 - Fin.<br>%% Acct. 16 - Mgrl. | Business Law. 095 | * Math. 45 @<br>** Math. 46 @@ | # Econ. 2 - Mac<br>## Econ. 3 - Mic |
|---|---|---|---|---|
| Alameda | % Bus 1A<br>%% Bus 1B | Bus 2 | * AP<br>** Math 4A | # Econ 1<br>## Econ 2 |
| Allan Hancock | % Acct 121 & 122<br>%% Acct 123 | Bus 110 | * Math 132<br>** Math 135 or<br>** Math 151 | # Econ 101<br>## Econ 102 |
| American River | % Acct 1A<br>%% Acct 1B | Bus 18A | * Math 42<br>** Math 6A or<br>** Math 16A or<br>** Math 43 | # Econ 1A<br>## Econ 1B |
| Antelope Valley | % Bus 1A<br>%% Bus 1B | Bus 18A | * Math 8<br>** Math 7A or<br>** Math 14 | # Econ 1A<br>## Econ 1B |
| Bakersfield | % Bus 1A<br>%% Bus 1B | Bus 18A | * AP<br>** Math 2 or<br>** Math 6A | # Econ 2<br>## Econ 1 |
| Barstow | % Bus 1A & Bus 1B<br>%% Bus 1C | Bus 22 | * AP<br>** Math 22A &<br>Math 22B | # Econ 1<br>## Econ 2 |
| Butte | % Acct 2<br>%% Acct 4 | Bus 8 | * Math 12<br>** Math 13 or<br>Math 23 | # Econ 2<br>## Econ 4 |
| Cabrillo | % Bus 1A<br>%% Bus 1B | Bus 18 | * Math 13<br>** Math 18 | # Econ 1A<br>## Econ 1B |
| Canada | % Acct 121<br>%% Acct 131 | Bus 201 | * Math 125<br>** Math 241 &<br>Math 242 or<br>Math 251 | # Econ 100<br>## Econ 102 |
| Canyons | % Acct 201<br>%% Acct 202 | Bus 211 | * AP<br>** Math 211 | # Econ 201<br>## Econ 202 |

@ Finite
@@ Calculus

Los Rios Community College District (American River College, Cosumnes River College & Sacramento City College)/San Diego State University
1987-88 Articulation Agreement



The following list of courses are acceptable in lieu of SDSU courses.

| SDSU Course | LRCCD Course | SDSU Course | LRCCD Course |
|---|---|---|---|
| Acctg 201 | Acctg 1A | Math 151 | Math 6B (AR) or 9B (CR & SC) |
| Acctg 202 | Acctg 1B | | |
| Art 103 | Art 21A (CR & AR) | Math 250 | Stat 1 |
| Art 216 | Art 21B (CR & AR) | Math 252 | Math 6C (AR) or 9C (CR & SC) |
| Art 225 | Art 25A (CR & AR) | | |
| Biol 200A | Biol 1A | SpC 103 | Sp 1 |
| Biol 200B | Biol 2 & 3 | TCF 100 | CM 62 (CR) |
| Econ 101 | #Econ 1A | TCF 101 | Photo 14 (CR) |
| Econ 102 | #Econ 1B | TCF 110 | CM 63 (CR) |
| Engr 210 | Engr 17 | TCF 121 | CM 56 (CR) |
| Engl 250A | Engl 30 | TCF 122 | Photo 46 & CM 54 (CR) |
| Engl 250B | Engl 31 | TCF 123 | CM 64 (CR) |
| Engl 260A | Engl 35 | | |
| Engl 260B | Engl 36 | | |
| FSCS 115 | FCS 23 (CR & SC) | | |
| FSCS 270 | FSC 34 (CR & SC) | | |
| Fin 140 | BusGen 18A | | |
| IDS 180 | CS 22 & DP 26 (AR & CR) | | |
| IDS 180 | CS 5 | | |
| IDS 280 | DP 30 | | |
| IDS 290 | Bus 8 or OA 8 | | |
| Math 104 | Math 15 | | |
| Math 119 | Stat 1 | | |
| Math 121 | Math 16A | | |
| Math 122 | Math 16B | | |
| Math 140 | Math 29 | | |
| Math 141 | Math 6A (AR), 9A (CR & SC) or 16A (AR & SC) | | |

Courses offered at all campuses unless noted:
AR = American River College
CR = Cosumnes River College
SC = Sacramento City College

# Prerequisites required at SDSU.

* * * * * * * * * * * * *

9/1/87 (F-26) MVD/jl

SDSU

COLLEGE OF BUSINESS ADMINISTRATION
UNDERGRADUATE PLANNING AND ADVISING
SAN DIEGO STATE UNIVERSITY
SAN DIEGO, CA 92182

(619) 265-5828

August 22, 1988

BUSINESS ADMINISTRATION MAJORS

students that are planning to transfer to SDSU in the Fall, 1989 semester need to know now that progress requirements for enrollment in upper division business majors at SDSU will be very different in the future.

These requirements are not related to admission to San Diego State University. Those requirements are stated by our Admissions and Records office and are not connected with our new information. The College of Business Administration has requested that the Chancellor's Office approve the following requirements for progress and enrollment in our ten upper-division majors:

- -grade of C or better in each of the prep classes
- -overall GPA of 2.5 or higher in all college work
- -overall GPA of 2.5 or higher in all work at SDSU
- -pass College of Business Administration Qu ntitative Competency Examination

As you can see, these requirements will influence how students prepare to transfer to our institution. The changes are being made to ready students for the level of academic achievement that is required to succeed in our program. We hope that by focusing on a higher overall GPA, we can convince students that they must be competent in preparatory classes and they ust be well prepared in all academic areas to be a successful business student.

As always, students who need to petition for Special Consideration may do that at our office.

RECENTLY ARTICULATED COURSES

| SDSU Course | LRCCD Course |
|---|---|
| Math 120 | Math 42 and 43 |
| Math 150 | Math 6A (ARC) |
| Math 150 and 151 | Math 9A and 9B (CRC) |

SAN FRANCISCO STATE UNIVERSITY BUSINESS SCHOOL
APPROVED TRANSFER EQUIVALENCIES

(Revised 11/84)

| | EQUIVALENCIES FOR: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| College | Econ.105 | Econ.101 | Acct.100 | Acct.101 | Acct.120 | BICS 110@ | BICS 212 | BICS 263 | ENGLISH 214 |
| Alan Hancock | Econ.101 | Econ.102 | Acct.103+ 104 or 103* (Was Bus.1A & 1B or 1A*) | Acct.104 (Was Bus. 1B) | Bus.110 (Was Bus. 1B) | Math 135 | Math 133 | INA | 3rd & 4th modules Engl.1 |
| American River | Econ.1A | Econ.1B | Acct.1A & 1B or 1A* | Acct.1B | Bus.18A | Math 43 | Stat.1 | CS 1 DP 26 | Engl 1B or ESL 6 |
| Antelope Valley | Econ.1A | Econ.1B | Acct.1A & 1B or 1A* | Bus.1B | Bus.18A | Math 14 | Math 15 | D.P.40 | Eng.1B |
| Bakersfield College | Econ.2 | Econ.1 | BA 1A+1B or BA 1A* | BA 1B | Bus.18A | Math 2 | Math 22 | INA | Engl 1B |
| Bakersfield (Cal State) | Econ.102 | Econ.101 | BA 201 | BA 202 | BA 372 | Math 120 | Math 140 | INA | Engl 110 |
| Butte College | Econ.201 | Econ.200 | Acct.201 + 202 | Acct.203 | Bus.310 | INA | Math 250 | D.P.200 | Engl 211or214 |

INA Where a particular matrix element is shown as INA, or where a college is omitted, insufficient information has been made available to evaluate equivalencies.

* Indicates courses which are partially equivalent (SFSU student must take additional unit of work to complete equivalency).

@ Students who have taken the course equivalent to BICS 110 must still take and pass the BICS 212 pretest in order to enter BICS 212.

(Revised: RM, ARC 6/87)

**Major Preparation Agreement**
University of California, Berkeley
Office of Relations with Schools
103 Sproul Hall
Berkeley, CA 94720
(415) 642-5135

UCB School of Business Administration (academic unit) American River Community College

Lower-Division Major Preparation for Business Administration Major

| UC Berkeley Lower Division Course(s) | Semester Units | Community College Course(s) | Semester Units |
|---|---|---|---|
| English 1A, 1B | 4, 4 | English 1A, 1B | 3:3 |
| Mathematics 1A, 1B | 4, 4 | Math 6AB or 16AB | 4:4/3:3 |
| Statistics 21 | 4 | Statistics 1 | 3 |
| Business Adm. 1 | 3 | Accounting 1A, 1B | 4:4 |
| Economics 1 | 3 | Economics 1A, 1B | 3:3 |
| Computer Science 8 or equivalent | 3 | DP 26 + CS 15<br>or DP 26 + CS 25<br>or DP 26 + CS 22 + CS 23 | |
| Foreign Language (3 years high school or 1 year college work) | | Spanish, French, German, Italian or Russian 1AB or 2AB | |

Breadth (Attach separate sheet if needed to list community college classes)
One additional English course beyond English 1A-1B
Two courses from the Behavioral Sciences
Two courses from the Natural Sciences
Two courses related to a foreign country
Three additional Social Science courses
(7 of the 10 above breadth requirements must be complete at the point of transfer. A minimum of 8 is preferred, so as to allow for ease in scheduling at Berkeley.)*

Comments:

Spring applicants cannot be considered and will be denied if fall semester at their school overlaps the beginning of UCB's spring semester. *Please Note: Students who have completed all 10 breadth requirements will have a better opportunity of being accepted regardless of when they are applying.

Approved: Ruth A. Nice — Admissions Officer — 5/13/87
Signature (U.C. Dept. Representative) — Title — Date

Lynn R. Baranco — 5/19/87
Signature (U.C.B. Director, ORS) — Date

**1989-90**
**AMERICAN RIVER COLLEGE**
**UNIVERSITY OF CALIFORNIA**
**GENERAL EDUCATION**
**TRANSFER CORE CURRICULUM**

Freshman students beginning the **Fall Term 1989** who **plan** to transfer to any campus of the University of California may **fulfill** the lower division Breadth and General Education Requirement by completing either the Transfer Core Curriculum (T.C.C.) **or** the specific lower division breadth and General Education requirements of the campus to which they intend to transfer.

Courses taken to fulfill a students major requirements may also be used to fulfill the T.C.C. Thirty-four (34) or more units are required to complete the T.C.C.

Discuss with your counselor your major requirements, as some University of California campuses will require the Transfer Core Curriculum and all of the prerequisites to your major completed prior to transfer.

Official approval from the University of California system of this T.C.C. is pending.

A. FOREIGN LANGUAGE (proficiency)

Proficiency is demonstrated by completion of a foreign language course 1A level, completion of two years of a foreign language in high school with a grade of "C" or better, or equivalent proficiency demonstrated by a minimum score of 550 on the appropriate CEEB Foreign Language Achievement Test.

B. ENGLISH COMPOSITION (6 semester units)

English 1A,1AH,1B,1BH

*Maximum credit allowed: one series

C. MATHEMATICS/QUANTITATIVE REASONING (3 semester units)
This requirement may be fulfilled by earning a minimum score of 600 on the Mathematics section of the Scholastic Aptitude Test (SAT), or 550 on the College Board Achievement Test in Mathematics (Level I or Level II).

Math 2,+6A,+6B,+6C,6D,*12,+16A,+16B,29,35,42,+43, @Statistics 1

+Math 6A, 16A and 43 combined: maximum credit allowed, one course
Math 6B and 16B combined: maximum credit allowed, one course
*Cross referenced with Philosophy 12
@Statistics 1 combined with Psychology 5: maximum credit allowed, one course

UNIVERSITY OF CALIFORNIA, SANTA BARBARA
ARTICULATION AGREEMENT
with
AMERICAN RIVER COLLEGE

Official per Mel Gregory
9 May 1983

| UCSB (1982-83) | AMERICAN RIVER COLLEGE |
|---|---|

BUSINESS ECONOMICS & ECONOMICS (B.A.)

| | |
|---|---|
| *Required courses for pre-majors and for both degrees: | |
| Economics 1 | Economics 1B |
| Economics 2 | Economics 1A |
| Economics 5 | Statistics 1 |
| Mathematics 1 (or equivalent) | Mathematics 14 |
| Select one of the following sequences: | |
| Economics 3AB | Accounting 1AB |
| Economics 7AB | " |
| Select one of the following: | |
| English 42 | English 14A |
| Mathematics 3AB | Mathematics 6A or 9A, 6B |
| Mathematics 3S | " |
| Mathematics 7AB | " |

*Note: Additional preparation required - consult UCSB catalog and major counselor.

ECONOMICS/MATHEMATICS (B.A.)

| | |
|---|---|
| Required courses: | |
| Economics 1 | Economics 1A |
| Economics 2 | Economics 1B |
| Mathematics 8 | No equivalent |
| Select one of the following sequences: | |
| Mathematics 3ABC | Mathematics 6A or 9A, 6BC |
| Mathematics 3S | " |
| Mathematics 7ABC | " |
| Select one of the following sequences: | |
| Mathematics 5ABC | Mathematics 6CD, 35 |
| Mathematics 5S | " |
| Mathematics 11ABC | " |

SCHOOL OF BUSINESS
AND PUBLIC ADMINISTRATION

UNIVERSITY OF THE PACIFIC Stockton, California
(209) 946-2211 95211

1985 - 1986

CURRICULUM REQUIREMENTS

| BUSINESS ADMINISTRATION UOP COURSES | AMERICAN RIVER Community College Equivalent |
|---|---|
| AEC 53 (Microeconomics) and AEC 55 (Macroeconomics) | Economics 1A and 1B |
| LBA 31 (Principles of Accounting) | Accounting 1A and 1B |
| AMA 33 (Calculus for Decision Making) | Math 16A Analytic Geometry and Calculus, 3 hrs. |
| AMA 37 (Probability and Statistics) | Statistics 1 |
| AMA 25 (Computers and Information Processing) | Computer Science 15, or CS 22 and 23, or CS 25 Fortran |
| LBA 53 (Business Law) | Business 18A |
| LPA 81 (Public Management) | Management 20 |
| PUBLIC ADMINISTRATION | |
| LPA 81 (Public Management) | Management 20 |
| AEC 53 (Microeconomics and AEC 55 Macroeconomics) | Economics 1A and 1B |
| AMA 33 (Calculus for Decision Making) | Math 16A Analytic Geometry and Calculus, 3 hrs. |
| AMA 31 (Probability and Statistics) | Statistics 1 |
| AMA 25 (Computers and Information Processing) | Computer Science 15, or CS 22 and 23, or CS 25 Fortran |
| LBA 31 (Principles of Accounting) | Accounting 1A and 1B |

Revised 2/10/86

University of Southern California
School of Business Administration

July, 1983

Effective Summer 1983

ARTICULATION AGREEMENT

SCHOOL OF BUSINESS REQUIREMENTS

| Major Requirements | ARC Courses | Units |
|---|---|---|
| *Composition 101A | English 1A | 3 |
| *Composition 101B | English 1B | 3 |
| *Math 117 (Finite) | Math 42 | 3 |
| *Math 118 (Calculus) | Math 43 | 3 |
| *Economics 250 (Macro) | Economics 1A | 3 |
| *Economics 251 (Micro) | Economics 1B | 3 |
| BUAD 403 (Business Law) | Business 18A & 18B | 6 |
| BUAD 280 (Introductory Accounting) | Accounting 1A and 1B | 4 - 4 |
| | | 32 |
| **Breadth Requirements** | | |
| Natural World (2 courses: 1 from A and 1 from B) | See S.C. Articulation | 6 - 7 |
| Aesthetic Approaches: Literature | See S.C. Articulation | 3 |
| Empirical Approaches | See S.C. Articulation | 3 |
| Non-Western Cultures | See S.C. Articulation | 3 |
| Choose two courses from the following categories:<br>American Public Life<br>Foundations of Western Culture I<br>Foundations of Western Culture II<br>Aesthetic Approaches: The Arts<br>Ethical Approaches | See S.C. Articulation | 6 |
| Electives (to total 60 non-business units) | See S.C. Articulation | 6 - 7 |
| | TOTAL | 60 |

*Must be taken for a letter grade

BL:do/nm

# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

# AMERICAN RIVER COLLEGE

## THE ARTICULATION PROCESS

### PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by examination and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy on Credit by Examination.

### GENERAL AGREEMENTS

1. Any secondary instructor may request that a course or program be considered for articulation. The contact person for any general questions about the business or computer science courses at American River College is the Dean, Business Area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the District, or to designate a school-site coordinator.

2. American River College may initiate articulation with a District instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Business Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a challenge examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the challenge exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor.

9. The College will invite District articulation instructors to be a part of the American River College subject-area Advisory Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Business Area, at American River College. Forms will be available from the American River College, Business Area.

2. The Dean, Business Area, will appoint an ARC instructor, who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the existing entry-level curriculum at American River College.

   d. Assist the secondary instructor in making any curriculum adjustments, evaluating equipment/laboratory needs, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Business Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. When the student has successfully completed requirements indicated for articulation and has passed the challenge examination administered by American River College, the student will receive certification from the College instructor. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded.

5. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a 2.00 or better grade average. Applications will be available in the Business Area office.

6. American River College instructors and the secondary articulation instructors will review the articulation process annually.

Attachment: Subject Area Competencies

## COMPETENCIES

## ACCOUNTING 60: FUNDAMENTALS OF COLLEGE ACCOUNTING

A student who elects to seek college credit by examination for Accounting 60 at American River College must be able to perform the following tasks:

1. Define accounting terminology and the basic accounting equation.

2. Analyze business transactions for service and merchandising firms, make journal entries, and post to general and/or subsidiary ledgers.

3. Recognize accounts to be adjusted and/or closed, record and post adjusting and closing entries, and prepare a post-closing trial balance.

4. Prepare and use a 10-column worksheet for end-of-period work.

5. Prepare an income statement, a balance sheet, and a statement of owner's equity for both a service and a merchandising business.

6. Make entries in the special journals used in a merchandising business and make appropriate postings to the general and subsidiary ledgers.

7. Calculate sales discounts, sales tax, trade discounts, and freight charges.

8. Calculate interest, maturity value, and maturity date for notes receivable and notes payable, and calculate proceeds for notes discounted.

9. Make calculations relating to payroll, including calculating regular, overtime, and gross and net earnings, FICA taxes, federal and state income tax withholding, and FUTA/SUTA taxes.

10. Make the journal entries to record the payroll and payroll tax expense and prepare Forms 940 and 941.

## COMPETENCIES

## BUSINESS 1: BEGINNING TYPING--KEYBOARDING/FORMATTING

### CREDIT BY EXAMINATION (2 UNITS)

A student who applies for college credit by examination for Business 1 (2 units)) at American River College must be able to perform the following tasks:

1. Make formatting/editing decisions when working from rough draft or unarranged copy.
2. Answer 15-20 questions related to formatting guidelines.
3. Produce a mailable business letter in full-block, modified block, or simplified block with standard or open punctuation in 15 minutes.
4. Produce a mailable envelope, fold and insert a letter in 5 minutes.
5. Produce a mailable interoffice memorandum in 10 minutes.
6. Arrange and type a mailable 2-page leftbound or unbound manuscript/report with title page and footnotes or endnotes in 40 minutes.
7. Center and type a table with title, subtitle, column headings, total line and three or four columns in 20 minutes.
8. Proofread copy accurately and make acceptable corrections.
9. Produce miscellaneous business forms (e.g. labels, file cards, postal cards, purchase orders) in acceptable formats.
10. Touch type 35 to 45+ GWAM for 5 minutes with a maximum of 1 error/minute.

### CREDIT BY EXAMINATION (1 UNIT)

A student who applies for college credit by examination for Business 1 (1 unit) at American River College must be able to perform the following tasks:

1. Follow written formatting/editing instructions to produce mailable documents--letters, tables, reports, etc.
2. Answer 15-20 questions related to basic formatting information.
3. Produce mailable announcement that is centered vertically and horizontally in 10 minutes.
4. Produce a mailable personal business letter in full- or modified-block format with standard punctuation in 15 minutes.
5. Produce a mailable envelope, fold and insert a letter in 5 minutes.

Business 1: Competencies, continued

6. Center and type a mailable table with a title, subtitle, column headings, and two or three columns in 20 minutes.

7. Produce a mailable unbound manuscript/report with a title page in 40 minutes.

8. Proofread copy accurately and make acceptable corrections.

9. Touch type 30 to 40+ GWAM for 5 minutes with a maximum of 1 error per minute.

## KEYBOARDING PROFICIENCY TEST

The core requirement for Business 1 may be satisfied by completing one unit of Business 1 or passing the Credit by Examination test for 1 or 2 units or passing a proficiency test.

A student who takes the keyboarding proficiency test at American River College must be able to perform the following tasks:

1. Touch type 25+ GWAM for 5 minutes with a maximum of 1 error per minute.

2. Demonstrate the ability to use the correct fingers when typing the alphabetic keys.

## COMPETENCIES

## BUSINESS 50: BUSINESS ENGLISH

Waiver of Requirement

A student who applies to take the challenge examination (waiver of requirement) for Business 50 at American River College must be able to meet the following standards:

1. Identify the eight parts of speech and uses.
2. Identify the parts and types of sentences and uses.
3. Compose effective sentences and paragraphs.
4. Properly apply the mechanics of punctuation, capitalization, abbreviations, number usage, word division, word usage, and spelling.
5. Select correct definitions from a list of common vocabulary words.
6. Apply the fundamentals of basic composition to produce effective business communications.
7. Proofread and edit business communications.

## COMPETENCIES

## CIS 1: COMPUTER FAMILIARIZATION

A student who elects to seek college credit by examination for Computer Science 1 at American River College must be able to perform the following tasks:

1. List the hardware components of a personal computer, including the monitor (CRT), keyboard, central processing unit, disk drives, and printers.

2. Describe and give examples of system software (DOS) and applications software (word processing, spreadsheets, database, and languages).

3. Perform the following basic DOS commands: DISKCOPY, FORMAT, DIRECTORY, ERASE, COPY.

4. Initiate the use of a PC including loading DOS, rebooting the system, setting time and date, recognizing the DOS prompt, and defining the default drive.

5. Describe types of diskettes and how to handle and care for them.

### WORD PROCESSING

6. Load DOS and the word processing program and exit to DOS.

7. Use the word processing program to create new files or retrieve existing files and enter, modify, save, and print text.

8. Set up the printer, including loading paper and taking documents off the printer.

### SPREADSHEETS

9. Describe the basic concepts of spreadsheet layout, including cells, rows, and columns, and describe data types, such as text, values, and formulas.

10. Use a spreadsheet program to create a file, enter and modify text, values, and formulas, save, and print a file.

11. Retrieve a spreadsheet file, modify text, values, or formulas, print and save.

### DATABASE

12. Explain basic database concepts and be able to define the terms file, field, record, and structure.

13. Use a database program to create a file, and enter and modify selected data.

14. Manipulate a database, including modifying and deleting records and displaying selected records.

15. Set up a report format and print a file and/or list records from the database.

16. Retrieve a database file, modify data, and save and print.

17. Describe applications of database.

## COMPETENCIES

### CIS 11A: MICROCOMPUTER APPLICATIONS - WORD PROCESSING

The student must be able to demonstrate the ability to use one of the major word processing software programs taught at American River College.

A student who elects to seek college credit by examination for Computer Information Science 11A at American River College must be able to perform the following tasks:

1. Perform a "cold boot" and a "warm boot," enter date and time, define the default drive, and load the software.
2. Format diskettes with a system command and/or a volume label.
3. Use DOS commands, including FORMAT, DISKCOPY, COPY, DIR, DIR/W, DIR/P, and CLS.
4. Name files, use extensions, and use wildcard characters.
5. Create, edit, file, and print documents, such as business letters, manuscripts, invitations/announcements, memos, and short tables.
6. Use functions such as INSERT, DELETE, BOLD, UNDERLINE, TAB, INDENT, LEFT-AND-RIGHT INDENT, TAB ALIGN, MOVE, COPY, SEARCH, REPLACE, BLOCK, HARD SPACE, TYPEOVER MODE.
7. Set margins, tabs, vertical spacing, hyphenation, and either justified or unjustified margins.
8. Format (or re-format) text, including the use of headers/footers, page numbering, vertical and horizontal centering, widows/orphans option (or block protect), and to suppress/interrupt functions.
9. Print from memory or disk, print single or multiple files, and cancel a print request.
10. Proofread on-screen text, including the use of a speller/dictionary.
11. Create primary and secondary merge files and to merge files to screen and/or to printer.
12. Sort files or blocks of text, including line records, merge files, and paragraph files in ascending or descending order.
13. Demonstrate disk management techniques including file retrieval, deleting files from disk, renaming files, and copying files to another disk or to the same disk.
14. Create and to use a simple text macro or format macro.
15. Properly exit from the word processing program.

## COMPETENCIES

## CIS 30A: INTRODUCTION TO COMPUTER PROGRAMMING IN BASIC

A student who elects to seek college credit by examination for Computer Information Science 30A, Introduction to Computer Programming in BASIC, must be able to perform the following tasks:

1. Define fundamental terms related to computer hardware, software, and data.
2. Demonstrate understanding of the use of a microcomputer, by using the microcomputer to input and run BASIC programs.
3. Recognize simple BASIC statements and commands.
4. Read and develop printer spacing layouts.
5. Develop complete BASIC programs that include input and output of numeric and character data, formula calculations, loops, decisions, arrays, subroutines, and formatted output.
6. Develop algorithms for standard business oriented problems using flowcharts, Nassi-Schneiderman, Pseudocode or other structured techniques.
7. Solve business problems using BASIC statements, including the following: INPUT, PRINT, LET, REM, READ, DATA, RESTORE, PRINT USING IF-THEN, IF-THEN-ELSE, WHILE-WEND, OR-NEXT, GOSUB, ONGOSUB, RETURN, STOP, GOTO, DIM, OPTION BASE, SWAP.
8. Develop structured programs using top-down design, basic control structures, modular program structure, good variable names, adequate comments, and other structured techniques.
9. Debug BASIC programs, including understanding and eliminating syntax, execution, and logic errors.
10. Use standard programming techniques and terminology to solve problems.

## COMPETENCIES

## CIS 31: STRUCTURED PROGRAMMING WITH PASCAL

A student who elects to seek college credit by examination for Computer Information Science 31, Structured Programming with Pascal, must be able to perform the following tasks.

1. Define fundamental terms related to hardware, software and data.

2. Demonstrate understanding of the use of a computer and be able to input and execute Pascal programs.

3. Develop algorithms to solve a variety of problems using top-down design and step-wise refinement technique.

4. Code, debug, execute and document structured standard Pascal programs.

5. Have a working knowledge of the following standard Pascal topics:

   A. Types - integer, real, char, Boolean, array, record, file, set and user-defined.

   B. Subprograms - procedures, functions and standard functions.

   C. Basic statements - assignment, decision, looping, input and output.

   D. Advanced statements and techniques - arrays, records, files, sets, data structures via pointers, searching, sorting and recursion.

6. Develop new ways of solving problems.

7. Develop programming style - programs which can be understood by people as well as computers.

8. Develop the underlying concepts of programming - those elements and techniques which are common to all programming languages.

The student must be able to perform the above tasks by using standard Pascal.

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**BUSINESS AREA**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

| District No. | High School Course Name |
|---|---|

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

**AMERICAN RIVER COLLEGE**

**and**

**XX HIGH SCHOOL**

## ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course:

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Business Area |
| Date | Date |
| Date | |

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, BUSINESS AREA

ARC PROGRAM AREA Accounting ARC COURSE Accounting 60, 3 units

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

DRIVER'S LICENSE NUMBER

_____

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for **Accounting 60, 3 units**.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, BUSINESS AREA

ARC PROGRAM AREA Business ARC COURSE Business 1, 1-2 units; or Waiver

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER

_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

I am applying for ___One unit of credit ___Two units of credit ___Waiver of requirement

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for **Business 1, __ 1 unit, __ 2 units,** or **__ Waiver of Business Core.**

Five minute keyboarding skill: GWAM _____ Errors _____ Date _____

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College, and must be enrolled and in good academic standing (See ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, BUSINESS AREA

ARC PROGRAM AREA Business ARC COURSE Business 50, Waiver of Requirement

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER

_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for the **Business English Waiver Examination**.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, BUSINESS AREA

ARC PROGRAM AREA Computer Information Science ARC COURSE CIS 1, 1 unit

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

DRIVER'S LICENSE NUMBER

_____

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for **Computer Information Science 1, 1 unit**.

In addition, the student has been advised that:

1. He/she must earn a grade of 75% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, BUSINESS AREA

ARC PROGRAM AREA Computer Information Science ARC COURSE CIS 11A, 1 unit

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

DRIVER'S LICENSE NUMBER

_____

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for **Computer Information Science 11A, 1 unit**.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**HIGH SCHOOL CERTIFICATION**

**AMERICAN RIVER COLLEGE, BUSINESS AREA**

ARC PROGRAM AREA Computer Information Science ARC COURSE CIS 30A, 1.5 units

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER
_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for **Computer Information Science 30A, 1.5 units**.

In addition, the student has been advised that:

1. He/she must earn a grade of 75% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, BUSINESS AREA

ARC PROGRAM AREA Computer Information Science ARC COURSE CIS 31, 4 units

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PART 1: TO BE COMPLETED BY STUDENT

NAME _____ _____ _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER

_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for **Computer Information Science 31, 4 units**.

In addition, the student has been advised that:

1. He/she must earn a grade of 75% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**BUSINESS AREA**

# CHALLENGE EXAM CERTIFICATION

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PART I: TO BE COMPLETED BY STUDENT

NAME _____ SSN _____
Last First MI

ADDRESS _____
Street City State ZIP

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____

I am applying for Advanced placement only_____ Advanced placement and credit_____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student took the advanced placement examination

for _____ on _____ 19__.

_____ The student passed the examination with a score of _____.

_____ The student did not pass the examination. Score _____.

_____
ARC Articulation Instructor

_____
Date

Copies to: Student
High School Instructor
Dean, Business Area

1989 6-60

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

OTHER

HIGH SCHOOL COURSES ARTICULATED WITH AMERICAN RIVER COLLEGE

| SCHOOL SITE | TEACHER | HIGH SCHOOL/ROP/ADULT CLASS | EQUIVALENT ARC CLASS |
|---|---|---|---|
| Bella Vista High School | Meidinger | Accounting 1 | Accounting 60 (3) |
| | Rogers | Typing 1 and II | Business 1 (1, 2 or W) |
| | Rogers | Business English | Business 50 (W) |
| | Rogers | Word Processing | CIS 11A (1) |
| Campos Verdes Adult School of Business | Orsburn | Word Processing | CIS 11A (1) |
| Casa Roble Fundamental High School | Smith<br>Dubie<br>McCoy | Typing 1 and 2 | Business 1 (1, 2 or W) |
| | Smith<br>Dubie<br>McCoy | Computer Applications | CIS 1 (1) |
| | Smith | Word Processing | CIS 11A (1) |
| | Smith | Accounting I/Accounting II | Accounting 60 (3) |
| Center High School | Gomes | Accounting | Accounting 60 (3) |
| | Games | Beginning Keyboarding | Business 1 (1, 2 or W) |
| | Games | Word Processing | CIS 11A (1) |
| | Myers | BASIC Programming | CIS 30A (1.5) |
| | Myers | Pascal Programming | CIS 31 (4) |
| Cordova High School | Yeager | Accounting I | Accounting 60 (3) |
| | Neal | Keyboarding 1A and 1B | Business 1 (1, 2 or W) |
| | Neal | Typing II/Word Processing | CIS 11A (1) |

## HIGH SCHOOL COURSES ARTICULATED WITH AMERICAN RIVER COLLEGE

| SCHOOL SITE | TEACHER | HIGH SCHOOL/ROP/ADULT CLASS | EQUIVALENT ARC CLASS |
|---|---|---|---|
| Del Campo High School | McConnell<br>Ponta<br>Ponta | Accounting 1<br>Computer Applications<br>Word Processing | Accounting 60 (3)<br>CIS 1 (1)<br>CIS 11A (1) |
| El Camino High School | Miles<br>Chatterton<br>Bell | Accounting 1<br>CT01 | Accounting 60 (3)<br>Business 1 (1, 2 or W) |
| Elk Grove High School | Alicaya<br>DeWitt<br>Alicaya | Accounting 1<br>Keyboarding 1B<br>Word Processing | Accounting 60 (3)<br>Business 1 (1, 2 or W)<br>CIS 11A (1) |
| Encina High School | Baker<br>Baker | Computer Programming I<br>Pascal Programming | CIS 30A (1.5)<br>CIS 31 (4) |
| Folsom High School | Fallon<br>Fallon<br>Jones | Accounting 1<br>Typing, Beginning & Intermediate<br>Typing 1 | Accounting 60 (3)<br>Business 1 (1, 2 or W)<br>Business 1 (1, 2 or W) |
| Foothill High School | Cain<br>Stammerjohan<br>Bertolucci | Accounting 1<br>Word Processing<br>Beginning Typing, Keyboarding/Formatting | Accounting 60 (3)<br>CIS 11A (1)<br>Business 1 (1, 2 or W) |
| Grant Union High School | Wilson<br>Nelson<br>Nelson | Accounting I<br>Word Processing<br>Computer Programming | Accounting 60 (3)<br>CIS 11A (1)<br>CIS 30A (1.5) |

HIGH SCHOOL COURSES ARTICULATED WITH AMERICAN RIVER COLLEGE

| SCHOOL SITE | TEACHER | HIGH SCHOOL/ROP/ADULT CLASS | EQUIVALENT ARC CLASS |
|---|---|---|---|
| Highlands High School | McMillan | Accounting | Accounting 60 (3) |
| | McMillan | Word Processing/Office Machines | Business 1 (1, 2 or W) |
| | Wong | Programming in BASIC | CIS 30A (1.5) |
| Hiram Johnson High School West Campus | Ellis | First Year Bookkeeping and Accounting | Accounting 60 (3) |
| Marconi Technical Center | Fletcher | ROP Account Clerk/Computer Assisted | Accounting 60 (3) |
| | Atencio | ROP Word Processing/Key Data Entry | CIS 11A (1) |
| | Johnson | Data Processing: Computers | CIS 1 (1) |
| Mesa Verde High School | Campbell | Typing | Business 1 (1, 2 or W) |
| Mira Loma High School | Axtell | Typing I and II | Business 1 (1, 2 or W) |
| | Axtell | Introduction to Computers | CIS 1 (1) |
| Oak Ridge High School | Gregg | Accounting | Accounting 60 (3) |
| Rio Americano High School | Skidmore | Accounting I | Accounting 60 (3) |
| | Skidmore | Typing | Business 1 (1, 2 or W) |
| Rio Linda High School | Olander | Accounting | Accounting 60 (3) |
| | Risney | | |
| | Cooper | BASIC Programming | CIS 30A (1.5) |
| | Anderson | Typing 1-2-3-4, Beginning, Intermediate & Advanced | Business 1 (1, 2 or W) |
| | Cooper | Word Processing | CIS 11A (1) |

1990

HIGH SCHOOL COURSES ARTICULATED WITH AMERICAN RIVER COLLEGE

| SCHOOL SITE | TEACHER | HIGH SCHOOL/ROP/ADULT CLASS | EQUIVALENT ARC CLASS |
|---|---|---|---|
| San Juan High School | Owen | Accounting I | Accounting 60 (3) |
| | Owen | Typing | Business 1 (1, 2 or W) |
| | Owen | Word Processing | CIS 11A (1) |
| | Owen | Introduction to Computers | CIS 1 (1) |
| Skills & Business Education Center | Holiday | Microcomputer Word Processing | CIS 11A (1) |

SUMMARY: 23 School Sites
8 School Districts
64 Agreements





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## BUSINESS ARTICULATION PROJECT

### High Schools/ROP/Adult Schools
### 1989-1990 Project Participants

Gladys Alicaya
Elk Grove High School
9800 Elk Grove-Florin Road
Elk Grove, CA 95624

Kim Anderson
Rio Linda High School
6309 Dry Creek Road
Rio Linda, CA 95673

Mary Atencio
Marconi Technical Center
1400 Bell Street
Sacramento, CA 95825

Francie Axtell
Mira Loma High School
4000 Edison Avenue
Sacramento, CA 95821

Robert Baker
Encina High School
1400 Bell Street
Sacramento, CA 95825

Sonja Bertolucci
Foothill High School
5000 McCloud Drive
Sacramento, CA 95842

Lewis A. Cain
Foothill High School
5000 McCloud Drive
Sacramento, CA 95842

Elizabeth Campbell
Mesa Verde High School
7600 Lauppe Lane
Citrus Heights, CA 95610

Ted Chatterton
El Camino High School
4300 El Camino Avenue
Sacramento, CA 95821

Roger Cooper
Rio Linda High School
6309 Dry Creek Road
Rio Linda, CA 95673

Barbara DeWitt
Elk Grove High School
9000 Elk Grove-Florin Road
Elk Grove, CA 95624

Larry Dubie
Casa Roble Fundamental H.S.
9151 Oak Avenue
Orangevale, CA 95662

Lee Ellis
Hiram Johnson (West)
5022-58th Street
Sacramento, CA 95820

Tom Fallon
Folsom High School
71 Riley
Folsom, CA 95630

Brenda Fletcher
Marconi Technical Center
1400 Bell Street
Sacramento, CA 95825

Molly Games
Center High School
8306 Watt Avenue
Elverta, CA 95626

Joe Gomes
Center High School
8306 Watt Avenue
Elverta, CA 95660

Mary Ann Gregg
Oak Ridge High School
1120 Harvard Way
El Dorado Hills, CA 95630

Margaret Holiday
Skills & Business Ed. Center
2751 Stockton Blvd.
Sacramento, CA 95817

Barbara Johnson
Marconi Technical Center
1400 Bell Street
Sacramento, CA 95825

Russell Jones
Folsom High School
71 Riley
Folsom, CA 95630

Laura Lott
El Camino High School
4300 El Camino Avenue
Sacramento, CA 95821

Jimmy McConnell
Del Campo High School
4925 Dewey Drive
Fair Oaks, CA 95628

Fred McCoy
Casa Roble Fundamental H.S.
9151 Oak Avenue
Orangevale, CA 95662

Gilbert McMillan
Highlands High School
6602 Guthrie Way
North Highlands, CA 95660

Darrel W. McRorie
Sacramento ROP - Palmiter Center
2040 Ethan Way
Sacramento, CA 95825

Gloria Meidinger
Bella Vista High School
8301 Madison Avenue
Fair Oaks, CA 95628

Don Miles
El Camino High School
4300 El Camino Avenue
Sacramento, CA 95821

Holland Myers
Center High School
8306 Watt Avenue
Elverta, CA 95626

Carol Neal
Cordova High School
2239 Chase Drive
Rancho Cordova, CA 95670

Elmena Nelson
Grant High School
1333 Grand Avenue
Sacramento, CA 95838

Carl Olander
Rio Linda High School
6309 Dry Creek Road
Rio Linda, CA 95673

Dee Orsburn
Campos Verdes Adult School
3701 Stephen Drive
North Highlands, CA 95660

Gayle M. Owen
San Juan High School
7551 Greenback Lane
Citrus Heights, CA 95610

Jeff Ponta
Del Campo High School
4925 Dewey Drive
Fair Oaks, CA 95628

Harry Risney
Rio Linda High School
6309 Dry Creek Road
Rio Linda, CA 95673

Mary Lou Rogers
Bella Vista High School
8301 Madison Avenue
Fair Oaks, CA 95628

Phyllis Skidmore
Rio Americano High School
4540 American River Drive
Sacramento, CA 95864

Marilyn Smith
Casa Roble Fundamental H.S.
9151 Oak Avenue
Orangevale, CA 95662

Judy Stammerjohan
Foothill High School
5000 McCloud Drive
Sacramento, CA 95842

Maxine Wilson
Grant High School
1333 Grand Avenue
Sacramento, CA 95838

James Wong
Highlands High School
6601 Guthrie Way
North Highlands, CA 95660

Neil Yeager
Cordova High School
2239 Chase Drive
Rancho Cordova, CA 95670

American River College

Robert G. Garrett
American River College
4700 College Oak Drive
Sacramento, CA 95841
484-8641

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484-8369

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Sacramento, CA 95841
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Sherrill Rabe
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Sacramento, CA 95841
484-8460

Marie Wong (counseling liaison)
American River College
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Sacramento, CA 95841
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Project Director-Business

Fall Semester

Joe Howard
Dean, Instruction
American River College
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Sacramento, CA 95841
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Spring Semester

Nanci Lee
Dean, Business
American River College
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484-8361

Ad Hoc

Jack C. Jenkins
ROP Area Coordinator
Sacramento County
Office of Education
9738 Lincoln Village Drive
Sacramento, CA 95827
366-2581

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Business Education Specialist
Vocational Education Unit
California Community College
Chancellor's Office
1107 9th Street
Sacramento, CA 95814
445-0486

Lee Murdock
Regional Supervisor
Vocational Education Unit
California State Dept. of Educ.
1919 21st Street
Sacramento, CA 95814
445-9570

# ARTICULATION
## A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

# COMMUNICATIONS

AMERICAN RIVER COLLEGE
4700 College Oak Drive
Sacramento, CA 95841

## COMMUNICATIONS/HUMANITIES AREA

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## COMMUNICATIONS/HUMANITIES AREA

The Communications/Humanities Area includes the departments of English (composition, literature, reading, ESL, and journalism), speech communication, foreign languages, and philosophy/humanities.

The area offers a full range of classes to meet the lower division general education requirements for transfer students, general education requirements for the AA and AS degrees, and remediation classes for those students whose skills require such work.

The course numbers assigned to classes provide a guideline as to the level of each class:

| | |
|---|---|
| 1 - 49 | University transfer level. Courses accepted for credit at CSU and UC are identified in the college catalog. Requires appropriate score on skills assessment tests in reading and writing for enrollment. |
| 50 - 99 | These classes are applicable for the AA and AS degrees. Requires appropriate score on skills assessment test in reading and writing for enrollment. |
| 200+ | These classes are designed for remediation and are not degree applicable. |

### COLLEGE ENTRANCE EXAMINATION BOARD (CEEB) ADVANCED PLACEMENT EXAMINATION CREDIT

American River College will grant credit for competency demonstrated on the English subject area exam based on the following scores:

| | |
|---|---|
| 1 or 2 | No credit granted |
| 3 | Elective units in Humanities - 3 units |
| 4 | English 1A - 3 units |
| 5 | English 1A and 1B - 6 units |

# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

# AMERICAN RIVER COLLEGE

## THE ARTICULATION PROCESS

### PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by examination and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy on Credit by Examination.

### GENERAL AGREEMENTS

1. Any secondary instructor may request that a course or program be considered for articulation. The contact person for any general questions about the English courses at American River College is the Dean, Communications/Humanities Area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the district, or to designate a school-site coordinator.

2. American River College may initiate articulation with a district instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Communications/Humanities Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will receive orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a proficiency examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the proficiency exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor. This proficiency testing and reporting does not apply to high school students who are enrolled only in English 254/54 (Writing Center) and English 268/68 (Reading Center).

9. The college will invite high school articulation instructors to attend the meetings of the English Department Articulation Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Communications/Humanities Area, at American River College. Forms will be available from the American River College Communications/Humanities Area.

2. The Dean, Communications/Humanities Area, will appoint an ARC instructor who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the proficiency expectations.

   d. Mutually agree on any curriculum adjustments, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Communications/Humanities Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. High school and American River College instructors will meet to holistically score the proficiency tests.

5. When the student has successfully completed requirements indicated for articulation and has passed the proficiency examination administered by American River College, the student will receive certification from the college instructor indicating eligibility for English 1A. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded. These provisions do not apply to students who are enrolled only in English 254/54 (Writing Center) and English 268/68 (Reading Center).

6. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a 2.00 or better grade average. Applications will be available in the Communications/Humanities Area office.

7. American River College instructors and the secondary articulation instructors will review the articulation process annually.

## COMPETENCIES

## ENGLISH 54: WRITING CENTER -- COLLEGE SKILLS

Individualized instructional modules designed to help the student acquire or improve writing skills in specific areas. Course offerings vary, depending upon the student's needs and abilities. These modules are degree applicable:

Sentence Types and Problems
Sentence Patterns and Punctuation
Variety in Sentence Structure
Sentence and Style
Introduction to the Paragraph
Expository Paragraphs
Developing the Paragraph
Christensen Paragraphs
Thesis and Topic Sentences
Computer-Assisted Essay Writing I
Essay Writing for Proficiency
Library Research Paper
Critical Analysis of Literature
Tutor Training I
Tutor Training II
Tutor Training III
Taking Essay Exams
Scientific and Report Writing
Specially Designed Modules

## COMPETENCIES

## ENGLISH 58: COLLEGE WRITING

A student who elects to seek college credit by examination for English 58 must be able to perform the following tasks:

1. Write for different audiences.

2. Write an expository essay by implementing the different phases of the writing process--discovery, draft, and revision.

3. Write an expository essay (500-750 words) containing an introduction, body, and conclusion.

4. Write an expository essay unified by a thesis and topic sentences.

5. Develop paragraphs with primary and secondary support for topic sentences, using a variety of support details including examples, explanations, causes, effects, comparisons, contracts, statistics, quotes.

6. Begin to develop a "voice" in writing.

7. Increase vocabulary and sensitivity to appropriate use of language in expository writing, avoiding slang and colloquialisms.

8. Use critical thinking skills to evaluate the logic in written communication.

9. Analyze one's own writing and that of other students and professional writers.

10. Edit and revise sentences to improve their structure and to correct errors.

11. Receive a "pass" grade on a holistically graded writing proficiency exam.

## COMPETENCIES

## ENGLISH 68: READING CENTER -- COLLEGE SKILLS

Individual instructional modules designed to help the student acquire or improve reading skills in specific areas. Course offerings vary, depending upon the student's needs and abilities. These modules are degree applicable:

### COMPREHENSION

College Reading I (Module 11 Fiction)
College Reading II (Module 12 Test Preparation)
College Reading III - Articles and Essays
Novel Ways II
Speed Reading I
Speed Reading II
Critical Reading and Reasoning

### VOCABULARY

Greek and Latin Word Structure
College Vocabulary 3600
Word Attack II

### STUDY SKILLS

Notetaking
Time Management
Textbook Reading

### LISTENING COMPREHENSION AND NOTETAKING

### TUTOR TRAINING

## COMPETENCIES

## ENGLISH 254: WRITING CENTER -- BASIC SKILLS

Individualized instructional modules designed to help the student acquire or improve writing skills in specific areas. Course offerings vary, depending upon the student's needs and abilities. These modules are non-degree applicable:

Nouns, Level One
Verbs, Level One
Verb Forms and Tenses, Level 2
Words That Connect
Words That Describe
The Basic Sentence
Journeys to Fame
Modern Short Biographies
The Reading Road to Writing
The Challenge of Sports
Reading Critically, Writing Analytically
American Idioms I
American Idioms II
American Idioms III
English Sentences
Paragraph Power
Verb Tenses
Punctuation
Dictionary Use
Penmanship

## COMPETENCIES

## ENGLISH 268: READING CENTER -- BASIC SKILLS

Individualized instructional modules designed to help the student acquire or improve reading skills in specific areas. Course offerings vary, depending upon the student's needs and abilities. These modules are all non-degree applicable:

### COMPREHENSION

Module R, Basic Reading
Module 68, Basic Reading and Vocabulary
Module 8, Developmental Reading and Vocabulary
Module 79, Basic Fiction Reading
Novel Ways I
Reading Drills 89A, 9B, 10C

### VOCABULARY

Word Attack +
Keys to Powerful Vocabulary

### SPELLING

Spelling Demons
Spell It +

### ESL READING/CONVERSATION I (MM)

### ESL READING/CONVERSATION II (WS)

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENTS

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**COMMUNICATIONS/HUMANITIES AREA**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

| District No. | High School Course Name |
|---|---|

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

AMERICAN RIVER COLLEGE, READING/WRITING CENTER

and

XX HIGH SCHOOL

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate in the following manner:

| | |
|---|---|
| High School: | Identified and referred junior and senior level high school students |
| American River College Course: | English 254 and 54 (Writing Center)<br><br>English 268 and 68 (Reading Center) |

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement, with the understanding that these courses do not qualify students for advanced placement status in other American River College English courses.

The satisfactory completion of an articulated module indicates attainment of skills and competencies appropriate to the student's level as identified and agreed to by the faculties of both institutions. Students will earn college credit at the appropriate level for each module and work will be graded credit/no credit.

| | |
|---|---|
| High School Articulation Instructor, Referring Counselor, or District Articulation Coordinator | ARC Articulation Instructor or Appropriate ARC Coordinator |
| Date | Date |
| Site Administrator/Principal | Dean, Communication/Humanities |
| Date | Date |

AMERICAN RIVER COLLEGE

and

XX HIGH SCHOOL

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course: English 58

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the proficiency examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Communication/Humanities |
| Date | Date |
| | |
| Date | |

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, COMMUNICATIONS/HUMANITIES AREA

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

DRIVER'S LICENSE NUMBER

_____

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a satisfactory progress and all other requirements needed to qualify for the advanced placement into English 1A.

In addition, the student has been advised that:

1. He/she must earn a passing score on the proficiency examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**READING/WRITING CENTER**

---

PART 1: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____
Last First MI

ADDRESS_____ CITY_____ ZIP_____

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____ YEAR OF BIRTH_____ SEX ___Female ___Male

ETHNICITY: Please check one. DRIVER'S LICENSE NUMBER

___ 1. American Indian ___ 5. Filipino _____
___ 2. Black ___ 6. White
___ 3. Asian ___ 7. Other, non-white
___ 4. Hispanic ___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE AMERICAN RIVER COLLEGE INSTRUCTOR

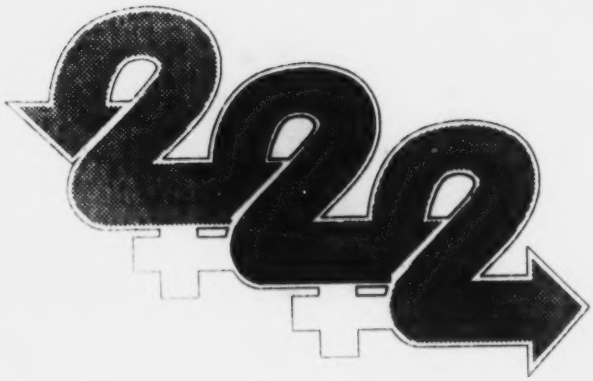
I certify that the above named student has successfully completed the college work and all other requirements to receive ____ units of college credit at the _____level.

| Modules Completed | Level | Units Awarded |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

_____
ARC Articulation Instructor or Coordinator

_____
Date

cc: District Articulation Coordinator
Appropriate ARC Coordinator
ARC Articulation Coordinator
High School Instructor
High School Counselor



# ARTICULATION
## A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

Technical Vocational Area

# ELECTRONICS TECHNOLOGY

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

## ELECTRONICS TECHNOLOGY

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# THE ELECTRONICS TECHNOLOGY PROGRAM

The electronics program is designed to provide students with the knowledge and skills needed for employment as electronics technicians in the fields of communication manufacture, installation, and repair. A second field is the computer or digital manufacture, installation, and repair. Electronic product servicing can be entered with the knowledge gained from the electronics program.

Students must choose one electronics major to receive the Associate in Science Degree; however, many students stay to earn a certificate of achievement in a second area of emphasis.

Students who plan to earn a four-year degree often complete their first two years at American River College and then transfer to the four-year college or university. The skills learned in the electronics program allow the student to become financially self-sufficient. Quite often companies that use electronic technicians will cooperate in sharing the expense of the advanced education. Many of the courses required in the two-year degree can also be applied toward the four-year degree.

In this section you will find a brief summary of the ARC electronics program. For more complete information, we urge you to consult the college catalog and a guidance counselor.

## THE ASSOCIATE IN SCIENCE DEGREE

To earn an Associate in Science degree in electronics, all students are required to take a common core of 25 units and an additional 9 units in the area of their major. An additional 9 units will earn the student a certificate in the second area. A total of 44 electronics units will earn an AS degree in the discipline of choice and a certificate in a second field. Students must meet all the general education graduation requirements as listed in the current catalog.

Please refer to the latest catalog for a complete listing of the requirements for an Associate in Science degree. Requirements for each of the majors is listed, including a recommended sequence. These requirements are outlined in the catalog under the heading ELECTRONICS TECHNOLOGY.

## CERTIFICATE OF ACHIEVEMENT

The Electronics Department offers a Certificate of Achievement in three areas, which may be earned by completing the following required classes.

| | |
|---|---|
| Electronic Camera Repair Technology | ET-30A,30B,50,51A,51B,60,61,90B,91A,91B |
| Electronic Communication Technology | CIS1,ET30A,30B,51A,51B (or equivalent experience) 50,60,61,68,71,76A,76B,78,81,89 |
| Electronic Computer Technology | CIS1,ET-30A,30B,51A,51B (or equivalent experience),50,60,61,68,71,76A,76B,85,89 |

## THE ELECTRONICS TECHNOLOGY PROGRAM

All students who seek an Associate in Science degree in electronics will complete a series of courses common to both the communications and computer areas.

## ELECTRONICS CORE

The core is designed to be the basic information required for all technicians regardless of the position. From this core all job specific knowledge and skills can be built. The electronic core consists of the following courses:

| Course No. | Course Title | Units |
|---|---|---|
| ET-30A | DC Theory and Circuit Fundamentals | 2.5 |
| ET-30B | AC Theory and Circuit Fundamentals | 2.5 |
| ET-50 | Laboratory Practices and Techniques of Fabrication | 1.0 |
| ET-51A | Mathematics for DC Circuit Fundamentals | 1.5 |
| ET-51B | Mathematics for AC Circuit Fundamentals | 1.5 |
| ET-60 | Mathematics for Semiconductor Theory | 3.0 |
| ET-61 | Semiconductor Theory | 5.0 |
| ET-68 | Introduction to Personal Computers for Electronic Technicians | 2.0 |
| ET-71 | Analog and Digital Integrated Circuit Applications | 5.0 |
| ET-76A | Programming for Electronic Technicians Using BASIC | 1.0 |
| ET-76B | Programming for Electronic Technicians Using BASIC | 1.0 |
| ET-89 | Circuit Review and Application | 1.0 |

## AREAS OF SPECIALIZATION

### COMMUNICATIONS AREA

| | | |
|---|---|---|
| ET-78 | Introduction to Electronic Communications | 4.0 |
| ET-81 | Communications Systems | 5.0 |

### COMPUTER AREA

| | | |
|---|---|---|
| ET-71 | Microprocessor Machine Language Programming | 4.0 |
| ET-85 | Digital Electronic Systems | 5.0 |

## ADDITIONAL COURSES NOT REQUIRED FOR DEGREES

| | | |
|---|---|---|
| ET-200 | Elements of DC Circuits | 3.0 |
| ET-67 | Principles of Television | 2.0 |
| ET-83 | Advanced Student Projects Laboratory | 2.0,2.0 |
| ET-88 | Communication Units | 3.0 |
| ET-92 | Computer Aided Drafting for Electronics | 2.0 |
| ET-93 | Topics in Electronics--New Emerging Occupations | 1-5,1-5 |
| ET-94 | Personal Computer System Analysis for Electronic Technicians | 4.0 |
| ET-98 | Work Experience | 1-4 |

Computer Information Science 1 is required of all electronics students. Keyboarding and computer functioning is a very integral and important part of today's electronics at all levels, manufacturing, installation, repair or servicing.

## THE TRANSFER PROGRAM

The American River College Electronics Department has an articulation agreement with both California State University, Sacramento, and California State University, Chico.

In addition to the general education requirements, electronics students are required to complete an electronics core as a part of their lower division preparation. This core is NOT identical to the ARC core requirements and it is not identical for each of the CSU campuses. However, the requirements are listed in the current catalog for each of the campuses. Additional information is available in the Transfer Center located in the Counseling Center.

### Course Transferability

| ARC | CSU Chico | CSU Humboldt | CSU Sacramento |
|---|---|---|---|
| ET-200 | ITEC 30 | | |
| ET-30A/30B | ITEC 31 | | |
| ET-61 | ITEC 32 | | |
| ET-71 | ITEC 33 1 & 2 | | CpE 64 |
| ET-77 | ITEC 34-4 | | CpE 185 |
| ET-85 | ITEC Electives | | EE 151 |

# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

## AMERICAN RIVER COLLEGE

## THE ARTICULATION PROCESS

### PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by examination and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy on Credit by Examination.

### GENERAL AGREEMENTS

1. Any secondary instructor may request that a course or program be considered for articulation. The contact person for any general questions about the Technical Vocational courses at American River College is the Dean, Technical Vocational Area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the District, or to designate a school-site coordinator.

2. American River College may initiate articulation with a District instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Technical Vocational Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a challenge examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the challenge exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor.

9. The College will invite District articulation instructors to be a part of the American River College subject-area Advisory Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Technical Vocational Area, at American River College. Forms will be available from the American River College Technical Vocational Area.

2. The Dean, Technical Vocational Area, will appoint an ARC instructor, who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the existing entry-level curriculum at American River College.

   d. Assist the secondary instructor in making any curriculum adjustments, evaluating equipment/laboratory needs, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Technical Vocational Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. When the student has successfully completed requirements indicated for articulation and has passed the challenge examination administered by American River College, the student will receive certification from the College instructor. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded.

5. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a C or better grade average. Applications will be available in the Technical Vocational Area office.

6. American River College instructors and the secondary articulation instructors will review the articulation process annually.

Attachment: Subject Area Competencies

## COMPETENCIES

## ET-30A: ELECTRONICS DC THEORY AND CIRCUIT FUNDAMENTALS

The student who elects to seek college credit by examination for Electronics Technology 30A at American River College must be able to perform the following tasks:

1. Define and describe the basic concepts of matter, energy sources, and electrical current flow.
2. Describe the operation of resistors in series, parallel, and series/parallel direct current circuits.
3. Describe and define passive circuits, magnetism, electromagnetism, meters, and specialized test equipment.
4. Demonstrate the correct function and operation of the Digital Multimeter, Analog Multimeter, DC Power Supply, Decade Box, Bridge Circuit, and applicable circuitry.
5. Build Direct Current circuits and describe the operation of the circuit.
6. Apply critical thinking and problem solving skills to troubleshoot DC circuits.
7. Demonstrate the ability to write clear concise laboratory reports.
8. Demonstrate an understanding about career orientation in the electronics field.

## COMPETENCIES

### ET-30B: ELECTRONICS AC THEORY AND CIRCUIT FUNDAMENTALS

The student who elects to seek college credit by examination for Electronics Technology 30B at American River College must be able to perform the following tasks:

1. Define and describe the basic concepts and theory of alternating current.
2. Describe the theory and operation of inductors, capacitors, and transformers.
3. Demonstrate the operation and use of test equipment to include oscilloscopes, function generators, and frequency counters as used in the laboratory experiments.
4. Build, describe, and demonstrate measurements for the band pass, band reject, high pass, and low pass filter circuits.
5. Build Alternating Current circuits and define the operation of these circuits.
6. Apply critical thinking and problem solving skills to troubleshoot AC circuits.
7. Demonstrate the ability to write clear and concise laboratory reports.
8. Define the Electronics Program orientation with electronic careers.

## COMPETENCIES

## ET-51A: ELECTRONICS DC THEORY AND CIRCUIT FUNDAMENTALS

The student who elects to seek college credit by examination for Electronics Technology 51A at American River College must be able to perform the following tasks:

1. Recognize common symbols and understand terminology used in the field of electronics.
2. Use mathematical and electronic symbols for problem solving.
3. Apply proper procedures for unit conversion and scientific notation.
4. Apply calculator and computer procedures to solve unit conversion, scientific notation, and metric conversion problems.
5. Apply calculator procedures to solve addition, subtraction, multiplication, division, fraction, power and roots, and percentage problems.
6. Apply Ohm's Law and calculator procedures to solve electrical problems.
7. Identify and solve by applying proper calculator procedures for series, parallel, and combination DC circuits.
8. Apply Ohm's and Watt's Laws to series, parallel, and combination DC circuits.
9. Apply calculator procedures for solving voltage divider and maximum power transfer problems.
10. Apply the voltage divider equations to calculate voltage drop.
11. Add, subtract, multiply, or divide expressions involving powers (exponents) and radicals (roots) of numbers.
12. Solve first degree linear equations.
13. Apply algebraic problem solving procedures using Kirchhoff's voltage and current laws.
14. Apply the Thevenin equivalent circuit method to solve single source and two source circuit problems.
15. Apply calculator procedures to solve resistive bridge circuits.
16. Calculate current meter shunt resistance, voltmeter multiplier resistance, and ohmmeter limiting resistance.

## COMPETENCIES

## ET-51B: ELECTRONICS AC THEORY AND CIRCUIT FUNDAMENTALS

The student who elects to seek college credit by examination for Electronics Technology 51B at American River College must be able to perform the following tasks:

1. Apply calculator procedures to solve right triangle trigonometric problems.
2. Apply Pythagorean theorem to solve problems.
3. Apply calculator procedures to solve for effective, rms, peak, average, and peak to peak AC values.
4. Solve AC problems with inductors and resistors in series and parallel.
5. Solve AC problems with capacitors and resistors in series and parallel.
6. Solve for inductive reactance, capacitive reactance, and impedance in AC circuits with series voltage measurements, or parallel current measurements.
7. Solve for filter circuits, resonant circuits, low pass, high pass, band pass, and band reject circuits.
8. Calculate low frequency cutoff, high frequency cutoff, bandwidth, quality factor, and resonant frequency values for frequency sensitive AC circuits.
9. Solve problems dealing with RC and RL time constants for charging and discharging.

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**TECHNICAL VOCATIONAL AREA, ELECTRONICS DEPARTMENT**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

District No. High School Course Name

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

AMERICAN RIVER COLLEGE

and

XX HIGH SCHOOL

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course:

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Technical Vocational Area |
| Date | Date |
| Date | |

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, TECHNICAL VOCATIONAL AREA

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER
_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for _____, ____ Units.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**TECHNICAL VOCATIONAL AREA**

## CHALLENGE EXAM CERTIFICATION

---

PART I: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____
Last First MI

ADDRESS_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____

I am applying for Advanced placement only_____ Advanced placement and credit_____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student took the advanced placement examination

for _____ on _____ 19__.

_____ The student passed the examination with a score of_____.

_____ The student did not pass the examination. Score _____.

_____
ARC Articulation Instructor

_____
Date

Copies to: Student
High School Instructor
Dean, Technical Vocational Area

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

OTHER

## AMERICAN RIVER COLLEGE/HIGH SCHOOL/ROP/ADULT SCHOOL PROGRAM

## 1989-1990 ARTICULATION AGREEMENTS

### ELECTRONICS DEPARTMENT

| School | Instructor |
|---|---|
| Bella Vista High School | Bob Mathison |
| Casa Roble High School | Ron DeBernardi |
| Chico High School, Butte County ROP | Ron Pope |
| Foothill High School | Gene Trinich |
| Grant Union High School | James Brown |
| Hiram W. Johnson High School | Eugene Houghton |
| Hiram Johnson High School, West Campus | Dennis Johnson |
| Marconi Technical Center, Encina High School | David Thompson |
| Mira Loma High School | Benjamin LaMontague |
| Modesto High School | John Reeder |
| Ponderosa High School | George Parker |
| Rio Linda High School | James Schavey |
| River City High School | Ira McKee |
| San Juan High School | Steve Hamilton |
| Woodland High School | Phil Wiechec |

# OCCUPATIONAL DESCRIPTIONS

Students who pursue an electronics program at American River College have the opportunity to enter one of several exciting and challenging careers. The following is a list of a few of these occupations and a brief description of what they would be expected to accomplish.

**COMPUTER SERVICE TECHNICIAN**
A modern computer system consists of a central processing unit and additional or peripheral equipment, such as remote terminals, high speed printers, graphics devices, and modems. Computer Systems Service Technicians perform the vital work of maintaining this intricate equipment, and keeping the system in top operating condition. Salary, $1,200 to $2,800 per month.

**ELECTRONIC MAINTENANCE TECHNICIAN**
Electronics Maintenance Technicians use their thorough knowledge of electronics theory and circuitry to maintain, service, and repair a variety of automated assembly line system, as well as the production and test equipment. These highly skilled, versatile workers are often known by such titles as line maintenance technician, equipment support technician, or equipment maintenance technician. Salary, $7 to $15 per hour.

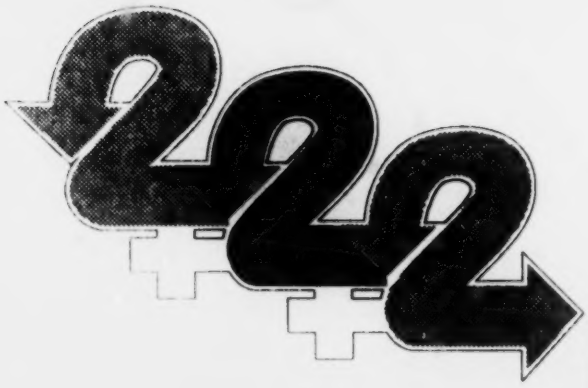
**ELECTRONICS TECHNICIAN**
The daily operations of industry and government and the activities of most private citizens have become dependent upon electronic products. Telephones, automobiles, computers, television sets, and microwave ovens are just a few of the endless number of products that now function with electronic parts. In the electronics manufacturing industry, the work performed by the Electronics Technicians is essential to the development, manufacture, modification, and maintenance of this wide range of products and equipment. Salary, $6 to $16 per hour.

**INSTRUMENT MECHANIC**
Instrument Mechanics install, repair, and service instrument controlled or automated systems of various types. The instruments they work with measure and/or control pressure, temperature, volume, motion, and chemical composition. Some mechanics work only with electronic, electromechanical, pneumatic, or hydraulic instruments, while others may work with several types of these systems. The specific duties that an instrument mechanic performs depend upon the type of automated system at the particular work site. Salary, $7 to $17 per hour.

**INSTRUMENTATION TECHNICIAN**
Instrumentation Technicians develop, maintain, and repair complex measuring and control devices and systems. Often they work closely with design engineers; they may even be responsible for devising, setting up, operating, and analyzing entire test programs, interpreting results for engineers to use in evaluating and revising designs. Technicians perform all necessary tests and record the effects of varying conditions, actual or simulated, such as vibration, stress, temperature, humidity, pressure, altitude, and acceleration. Then they prepare graphs and written reports to translate test results into meaningful terms, such as speed-temperature-horsepower ratios. Salary, $6.50 to $15 per hour.

**TELEVISION AND RADIO SERVICE TECHNICIAN**
Television and Radio Service Technicians install, service, and repair a wide variety of electrical and electronic audio and video equipment. In addition to television and radios they work on phonographs and stereo systems, tape recorders, electronic musical instruments, video disc and cassette recording equipment, home security systems, and video games. Salary, $8 to $15 per hour.

For more on any one of these or other electronic occupations, please consult the Dictionary of Occupational Titles, or the California Occupational Guide. Both of these publications are updated continually and are located in the Career Center at American River College, or any public library with a reference section.



# ARTICULATION
## A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

Technical Vocational Area

# FIRE TECHNOLOGY

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

## FIRE TECHNOLOGY

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## THE FIRE TECHNOLOGY PROGRAM

Fire technology is the science of fighting and preventing fires through an organized team effort.

The fire technology program is designed to provide students with a thorough understanding of the physical and chemical laws of combustion, a working knowledge of fire fighting and safety equipment, and the ability to administer emergency medical aid. fire technologists must have a sense of public service and willingness to work with community organizations to accomplish fire prevention goals.

Students who plan to earn a four-year degree often complete their first two years at American River College and transfer to a four-year college or university. The skills learned in the fire technology program will aid the student in becoming eligible for entry into the fire service and/or upgrade the skills needed for a person to advance within the fire service. Many courses required in the two-year degree program can also be applied toward the four-year degree.

In this section you will find a brief summary of the ARC Fire Technology program. For more complete information, we urge you to consult the college catalog and a guidance counselor.

## THE ASSOCIATE IN ARTS DEGREE

To earn an AA degree in fire technology, all students are required to take a common core of 15 units and an additional 15 units in the area of their major chosen from recommended electives. A total of 30 fire technology units will give a major for the AA degree in fire technology. Students must also meet all the general education graduation requirements as listed in the current catalog.

Please refer to the latest catalog for a complete listing of the requirements for an Associate in Arts degree. Requirements for the major are listed, including the recommended sequence, and outlined in the catalog under the heading FIRE TECHNOLOGY.

## CERTIFICATE IN FIRE TECHNOLOGY

A Certificate of Achievement in fire technology will be awarded to students who complete 15 units in the Fire Technology core classes and an additional 15 units to be chosen from recommended electives.

## THE FIRE TECHNOLOGY PROGRAM

All students who seek a certificate and/or an Associate of Arts degree in fire technology will be required to complete a series of courses.

## FIRE TECHNOLOGY CORE

This core is designed to be the basic information required for all fire technologists regardless of the position. From this core all job specific knowledge and skills can be built. The fire technology core consists of the following courses.

| Course No. | Course Title | Units |
|---|---|---|
| FT 51 | Introduction to Fire Technology | 3 |
| FT 52 | Fundamentals of Fire Prevention | 3 |
| FT 53 | Fundamentals of Fire Behavior and Control | 3 |
| FT 54 | Fire Protection Equipment and Systems | 3 |
| FT 55 | Fundamentals of Fire Safety | 3 |

## RECOMMENDED ELECTIVES

| | | |
|---|---|---|
| FT 61 | Fire Company Organization Management | 3 |
| FT 62 | Fire Service Records and Reports | 3 |
| FT 64 | Building Construction for Fire Protection | 3 |
| FT 65 | Fire Investigation | 3 |
| FT 66 | Fire Tactics and Strategy | 3 |
| FT 67 | Hazardous Materials | 3 |
| FT 68 | Rescue Practices | 3 |
| FT 73 | Fire Apparatus | 3 |
| FT 75 | Fire Hydraulics | 3 |

## THE TRANSFER PROGRAM

American River College Technical/Vocational Area has an articulation agreement with the California State University, Sacramento.

To be eligible to enter the program, the student needs to have completed an Associate in Arts degree at a community college in Fire Technology, or an equivalent major.

# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

## AMERICAN RIVER COLLEGE

# THE ARTICULATION PROCESS

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The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

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2. American River College may initiate articulation with a District instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Technical Vocational Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a challenge examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the challenge exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor.

9. The College will invite District articulation instructors to be a part of the American River College subject-area Advisory Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Technical Vocational Area, at American River College. Forms will be available from the American River College Technical Vocational Area.

2. The Dean, Technical Vocational Area, will appoint an ARC instructor, who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the existing entry-level curriculum at American River College.

   d. Assist the secondary instructor in making any curriculum adjustments, evaluating equipment/laboratory needs, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Technical Vocational Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. When the student has successfully completed requirements indicated for articulation and has passed the challenge examination administered by American River College, the student will receive certification from the College instructor. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded.

5. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a C or better grade average. Applications will be available in the Technical Vocational Area office.

6. American River College instructors and the secondary articulation instructors will review the articulation process annually.

Attachment: Subject Area Competencies

## COMPETENCIES

## FT 51: INTRODUCTION TO FIRE TECHNOLOGY

The student who elects to seek college credit by examination for Fire Technology 51 at American River College must be able to perform the following tasks:

1. Described fire protection career opportunities.
2. Demonstrate an understanding of the history of fire protection.
3. Define the social, political, and economic implications of the fire problem.
4. List public and private fire protection services.
5. Demonstrate an understanding of the characteristics and behavior of fire.
6. Describe the fire prevention functions.
7. Define and describe fire defense functions.
8. Demonstrate an understanding of fire suppression principles.

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**TECHNICAL VOCATIONAL AREA, FIRE TECHNOLOGY DEPARTMENT**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

| District No. | High School Course Name |
|---|---|

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

**AMERICAN RIVER COLLEGE**

**and**

**XX HIGH SCHOOL**

## ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course:

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Technical Vocational Area |
| Date | Date |
| | |
| Date | |

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, TECHNICAL VOCATIONAL AREA

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____ - - _____
Last First MI

ADDRESS_____ CITY_____ ZIP_____

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____ YEAR OF BIRTH_____ SEX ___Female ___Male

ETHNICITY: Please check one.

DRIVER'S LICENSE NUMBER

_____

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for _____, ____ Units.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**TECHNICAL VOCATIONAL AREA**

## CHALLENGE EXAM CERTIFICATION

---

PART I: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____
Last First MI

ADDRESS_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____

I am applying for Advanced placement only_____ Advanced placement and credit_____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student took the advanced placement examination

for _____ on _____ _ 19__.

_____ The student passed the examination with a score of_____.

_____ The student did not pass the examination. Score _____.

_____
ARC Articulation Instructor

_____
Date

Copies to: Student
High School Instructor
Dean, Technical Vocational Area

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

OTHER

**AMERICAN RIVER COLLEGE**
**HIGH SCHOOL/REGIONAL OCCUPATIONAL PROGRAM/ADULT SCHOOL**

**1989-1990 ARTICULATION AGREEMENTS**

**FIRE TECHNOLOGY DEPARTMENT**

| Instructor | School |
|---|---|
| Hollis M. Osborne | Sacramento ROP |

California State University, Sacramento
6000 J STREET, SACRAMENTO, CALIFORNIA 95819-2694

M E M O R A N D U M

April 28, 1988

To: Fire Service Applicants

From: June E. Stuckey, Associate Vice President
Program Development and Evaluation

Subject: Bachelor of Science: Special Major

I am writing this note to those who have expressed an interest in designing a Bachelor of Science Degree: Special Major, in Fire Service at California State University, Sacramento. Response to our proposed program has been overwhelmingly favorable, which encourages us to move ahead with our plans. To that end, we have created a Faculty Advisory Board who has planned the initial program and will assist in advising those of you who enroll. The names of these faculty and the Departments/Schools they represent are listed in the enclosed advising sheet.

The program is expected to evolve as we gain experience with it, but initially we plan to offer a basic core of 15 units in management, six units in methodology including a computer course, three units in governmental organization, and four to six areas of possible specialization including Organizational Communications, Human Resource Management, Public Policy, and Criminal Justice--Investigations. Also, there will be an extensive list of recommended elective courses from which to choose the units necessary to complete other major or degree requirements. Attached is a general outline of the major requirements as well as the degree requirements.

A couple of reminders: First, this program will not offer courses in Fire Science or Fire Technology. To be eligible to enter the program, the student needs to have completed an AA or AS degree at a community college in Fire Science or Fire Technology, or an equivalent major. The second reminder is that CSUS, at this point, is not able to offer "back-to-back" sections of the same course. We will try to schedule your program when possible with faculty who teach multiple sections of the same course, and with those faculty who will be willing to work with the fire service students to accommodate their irregular schedule. However, it will be encumbent on the student to arrange with the instructor ways of meeting all course requirements.

After reading these materials, if you decide you want to enroll in the program, you should do the following:

1. Collect all of your college transcripts (if you have already submitted them to me, I shall have them on file in the Admission Counselor's Office of Mr. Gary Webbenhurst, Student Services Center, Room 111F).

2. Call CSUS Admission Counselor Gary Webbenhurst, (916) 278-7830 or 278-6761, and make an appointment with him to evaluate your transcripts in regard to your eligibility for admission, and to determine the number of community college credits that will count toward general education requirements and the rest of your degree program.

   Mr. Webbenhurst will inform you, also, of how to register for classes and will assign you a major adviser from the faculty listed on the advising sheet.

3. Complete the standard CSU Application Form and pay the $45 application fee, required of all students.

4. Make an appointment with your major adviser.

I hope this letter provides the information needed to get you started on the degree program. We are excited about this opportunity to work with the fire service community to assist firemen and women to meet more fully their career and educational goals.

If you have additional questions, you may contact Mr. Webbenhurst, any of the Faculty Advisory Board, or me.

Best wishes to you as you consider this new endeavor.

JES/cb
Encls.

cc: Advisory Faculty and Staff

Fire Service Special Major
Advisory Faculty and Staff

Dr. Andrew Banta, Associate Professor of Mechanical Engineering, School of Engineering and Computer Science. Office: ENGR 1213B, Telephone #: 278-6616

Dr. Richard Cobb, Professor of Organizational Behavior and Environment, and Assistant Dean of the School of Business and Public Administration. Office: BUS 1035, Telephone #: 278-5974

Dr. Cary Goulard, Professor of Recreation and Leisure Studies, and Associate Dean of the School of Health and Human Services. Office: TNN 7, Telephone #: 278-7255

Dr. Irving Herman, Professor of Organizational Behavior and Environment, and Chair of Undergraduate Programs Committee, School of Business and Public Administration. Office: BUS 2028, Telephone #: 278-6463

Dr. Tom Johnson, Professor and Chair of the Division of Criminal Justice, School of Health and Human Services. Office: SS 139, Telephone #: 278-6487

Dr. William Kerby, Professor of Economics, School of Arts and Sciences. Office: BUS 3035, Telephone #: 278-7112

Dr. Tom Knutson, Professor of Communication Studies, School of Arts and Sciences. Office: CTR 310, Telephone #: 278-6941

Dr. T. Eugene Shoemaker, Professor of Government, School of Arts and Sciences. Office: SS 121, Telephone #: 278-7090

Dr. John Williams, Assistant Professor of Communication Studies, School of Arts and Sciences. Office: CTR 333, Telephone #: 278-7832

Dr. June Stuckey, Professor of Education and Associate Vice President for Academic Affairs. Office: ADM 234, Telephone #: 278-6859

Mr. Gary Webbenhurst, Admissions Counselor, Fire Service Special Major. Office: CTR 111F, Telephone #: 278-6761 or 278-7830

Other Contact Names/Numbers:

Mr. James Warren, Director of Admissions. Office: CTR 111F, Telephone #: 278-6763

Dr. Duane Anderson, Director of Outreach. Office: CTR 112, Telephone #: 278-6724

Mr. Ed Perhay, Director of Evaluations. Office: CTR 111F, Telephone #: 278-6755

Miss Sue Teel, Admissions Adviser Assigned to Community Colleges. Office: CTR 111F, Telephone #: 278-6755

CSUS Advising Center. Office: CTR 105, Telephone #: 278-6351

**FIRE SERVICE SPECIAL MAJOR**
(Suggested Pattern of Study)

I. Basic Management Core -- 15 units

From School of Business and Public Administration:

OBE 150 - Management of Contemporary Organizations, 3 units
OBE 153 - Management of Human Resources, 3 units

Select 9 units from the following:

*Mgmt 100 - Management Problems, 3 units
*Mgmt 180 - Production and Operations Management, 3 units
*OBE 154 - Management Skills Seminar, 3 units
*OBE 156 - Compensation Management, 3 units
*OBE 158 - Labor Management Law and Public Policy, 3 units
*OBE 190 - Public Agency Decision Making, 3 units
*OBE 192 - Budget, Politics and Public Agencies, 3 units

*Courses used in the Basic Core can not be counted also in an area of specialization.

II. Methodology — 3-6 units

A. Disciplinary Methodology -- 3 units

Select 3 units from the following:

Com S 100C - Introduction to Scientific Methods in Communication Research
CrJ 101 - Introduction to Research Methods in Criminal Justice
Govt 100 - Introduction to the Methodology of Political Science
OBE 191 - Methodology in Public Management

B. Computer Methodology — 3 units (Adviser to determine course)

This course may be waived by the adviser in favor of requiring an additional elective course if the student's background and understanding of computers is sufficient to access major data banks and to work effectively with spread sheets, wordprocessing or statistical software packages.

III. Governmental Organization -- 3 units

Govt 180 - California State and Local Goverment
or
Econ 132 - State and Local Government Finance

IV. Specialization Areas (select one specialization area) -- 9 units
(See attached Specialization Area Requirements)

Organizational Communication - Tom Knutson/John Williams, Area Advisers
Human Resource Management - Richard Cobb/Degree Programs Center, Area Advisers
Public Policy - Gene Shoemaker/William Kerby, Area Advisers
Criminal Justice, Investigation - Tom Johnson, Area Adviser
Environmental Studies/Recreation - Andy Banta/Cary Goulard, Area Advisers
Human Relations - June Stuckey, Area Adviser

V. Breadth Area (select three specializations) -- 15 units
(See attached Specialization Area Requirements)

Instead of taking a nine-unit Specialization Area, students may elect, with adviser consent, 15 units from three of the above Specialization Areas.

VI. Electives -- 0-6 units

Take the number of electives needed to complete 36 upper division units (Area Advisers will recommend electives).

VII. Proficiencies Required

1. English Writing Proficiency (WPE)
2. Computer Literacy (to be satisfied by II.B. above or as determined by adviser)
3. Oral Communications (as determined by the adviser) or Com St 103 or 104, or equivalent course

IX. Recommended General Education Prerequisites (up to 39 transferrable units may be accepted from community college)

1. Oral Communications, 3 units
2. Written Communications, 3 units
3. Critical Thinking, 3 units
4. Economics 1A, 3 units
5. Government 1, 3 units
6. Computer Science/Math or Statistics 1, 3 units
7. United States History, 3 units
8. One Life Science Course*, 3-4 units
9. One Physical Science Course*, 3-4 units
*(one of which is to be taken with a lab)
10. Others, up to 39 units may be accepted toward the CSUS GE Pattern

4-26-88

Fire Service Special Major
Specialization Areas: See Program Requirements IV. or V.

## Organizational Communication Specialization Area
(Select 9 units as indicated below)

Area Requirements

Com S 100A Survey of Communication

Theory/Application (3 units from the following)

Com S 116 Intercultural Communication
Com S 119 Conflict Resolution Through Communication
Com S 123 Publicity and Public Relations Techniques
Com S 145 Organizational Communication

Communication Skills (3 units from the following)

Com S 103 Presentational Speaking in the Organization
Com S 104 Persuasive Public Speaking
Com S 105 Communication in Small Groups

## Human Resources Management Specialization Area
(Select 9 units from the following)

OBE 116 - Administrative Law
OBE 151 - Roles of Men and Women in Management
*Mgmt 100 - Management Problems
*Mgmt 180 - Production and Operations Management
*OBE 154 - Management Skills Seminar
*OBE 156 - Compensation Management
*OBE 158 - Labor Management Law and Public Policy
*OBE 190 - Public Agency Decision Making
*OBE 192 - Budget, Politics and Public Agencies
OBE 195 - Administrative Internship

*Courses can not be used <u>both</u> in the Basic Core and an area of specialization.

**Public Policy Specialization Area**
(Select 9 units as indicated below)

Select at least 3 units from the following:

OBE 116 - Administrative Law
*OBE 158 - Labor Management Law and Public Policy
*OBE 190 - Public Agency Decision Making
*OBE 192 - Budget, Politics and Public Agencies
OBE 193 - Intergovernmental Administration
OBE 195 - Administrative Internship
OBE 197 - California State Administration

*Course taken in Basic Core may not be included.

Select at least 3 units from the following:

Govt 151 - Bureaucracy
Govt 156 - Pressure Groups and Lobbying
Govt 157 - Public Opinion and Propaganda
Govt 160 - Public Policy Development
Govt 169B - Special Studies in Public Policy
Govt 195 - Government Internship, 3-5 units

**Criminal Justice, Investigation Specialization Area**
(Select 9 units from the following)

CrJ 165 Criminal Justice Planning, 3 units

CrJ 168 Criminal Justice Information Systems, 3 units

CrJ 140 Advanced Criminal Investigation, 3 units

CrJ 146 Introduction to Physical Evidence, 3 units

CrJ ___ Arson Investigation, 3 units (proposed course under development)

**Environmental Studies/Recreation Specialization Area**
(Select 9 units as indicated below)

ENVS 110 Contemporary Environmental Issues, 3 units

ENVS 118 Environment and the Law, 3 units
or
ENVS 169B Environmental Politics and Policy, 3 units

RLS 140 Recreation Facilities Planning and Design, 3 units
or
RLS 154 Recreation Facilities Maintenance and Operation, 3 units

**Human Relations Specialization Area**
(Select 9 units as indicated below)

Choose a minimum of 3 units from each of the following groups:

Group I. Intercultural Relations (3 units)

Com S 116 Intercultural Communications
EdTE 164.3 Unlearning Racism
ETHNC 100 Ethnic America
Anthro 186 Culture and Poverty
Econ 181 Economics of Racism
Hist 186 Ethnic Minorities in California
Psych 135 Psychology of Ethnic Minorities
CrJ 192 American Criminal Justice and Minority Groups
Soc 119 Ethnic and Race Relations
Soc 125 Class and Inequality

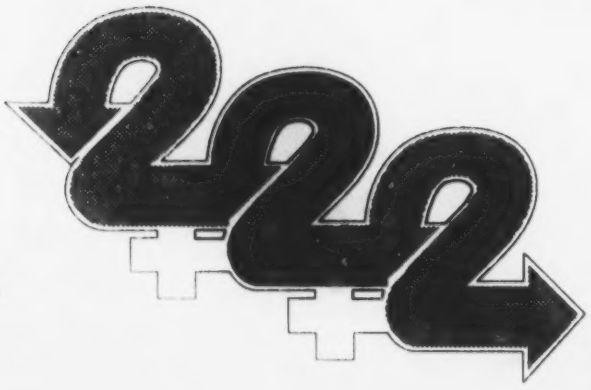
Group II. Gender Relationships (3 units)

Nurs 160 Human Sexuality
WomSt 138 Women and Work
WomSt 137 Women of Color
WomSt 139 Violence Against Women
Psych 157 Psychology of Women
Psych 155 Laboratory in Human Relations
OBE 151 The Roles of Women and Men in Management

Group III. Health and Safety (3 units)

HS 100 Foundation of Safety and Accident Prevention
HS 106 Home Accidents
HS 122 Mental Health
HS 130 Drugs and Alcohol
Psych 117 Drugs and Behavior
Psych 137 Stress Management
Psych 171 Behavior Modification Basic Principles
Psych 150 Psychological Aspects of Aging
RLS 100 Recreation and Leisure Life Style

4-26-88



# ARTICULATION
# A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

## Technical Vocational Area

# FORESTRY

AMERICAN RIVER COLLEGE
4700 College Oak Drive
Sacramento, CA 95841

## FORESTRY

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Participants . . . . . 10-50
(Not included)

## THE FORESTRY PROGRAM

The forestry program is designed to train graduates for direct entry into jobs involving extensive field work. Forest technicians assist four-year forestry graduates and registered professional foresters in carrying out management plans, directing field operations, and supervising forest workers and aides.

The American River College forestry program prepares students either to transfer to Sierra College for the second year of the forest technician program or to transfer to Humboldt State University or Cal Poly, San Luis Obispo, beginning with the sophomore year.

## THE ASSOCIATE IN SCIENCE DEGREE

The two-year forestry program is a bi-district program between Los Rios Community College District and Sierra College District. Students spend the first year at American River College and the second year at Sierra College. The general education requirements can be taken at either college. Students will be granted an Associate in Science degree from Sierra College upon successful completion of the program course of study.

## THE TRANSFER PROGRAM

Most California high schools do not offer forestry classes. Therefore, the articulation of forestry classes is between American River College and two campuses of the California State University system--Humboldt State University and Cal Poly, San Luis Obispo.

Students desiring to enter the forestry program with the ultimate goal of a baccalaureate degree should complete the CSU admission requirements while in high school. Those requirements not completed in high school can be taken at either American River or Sierra College.

The courses for which tentative articulation agreements have been made are listed below:

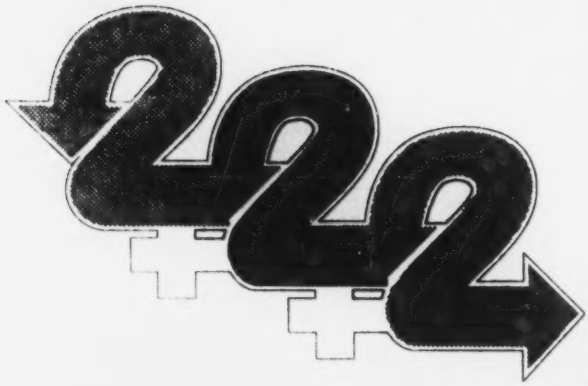
| ARC<br>(semester units) | Humboldt State<br>(semester units) | Cal Poly, SLO<br>(quarter units) |
|---|---|---|
| Forestry 1, 3 units | Forestry 115, 1 unit | Forestry 201, 3 units |
| Forestry 14, 3 units | Forestry 210, 4 units | Agriculture Engineering 237, 2 units |
| Forestry 15, 4 units | Forestry 130, 4 units | Botany 123, 4 units |
| Forestry 24, 4 units | Forestry 220, 4 units | Forestry 303, 4 units |
| Forestry 35, 2 units | (none) | Forestry 204, 2 units |
| Horticulture 2, 3 units | Natural Resource 260, 2 units<br>Natural Resources 260L, 1 unit | Soil Science 121, 4 units |

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

OTHER



# ARTICULATION
# A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

## Technical Vocational Area

# HORTICULTURE

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

## HORTICULTURE

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# THE HORTICULTURE PROGRAM

The horticulture program is designed to provide students with the knowledge and skills needed for placement in various fields of horticulture. These include employment with nurseries, landscape contractors, arborists, park departments, fertilizer and pesticide companies, sprinkler companies, or as maintenance groundskeeper or horticulture consultant.

Students who plan to earn a four-year degree often complete their first two years at American River College and transfer to a four-year college or university. Many of the courses required in the two-year degree can also be applied toward the four-year degree.

In this section you will find a brief summary of the ARC Horticulture Program. For more complete information, we urge you to consult the college catalog and a guidance counselor.

## ASSOCIATE IN ARTS DEGREE

To earn an AA degree in horticulture, all students are required to take a designated sequence of horticulture courses. These courses will provide proficiency in either the landscape industry option, which requires 39-41 units, or in the nursery industry option, which requires 34-36 units. By taking selected courses from the second industry option, it is possible to earn an AA degree in one area and a certificate in the other. This is with the assumption the student meets all the general education requirements as listed in the current catalog.

## CERTIFICATE OF ACHIEVEMENT

Students may earn a Certificate of Achievement in the Landscape Industry option or in the Nursery Industry option. The required courses for each option are as follows:

| | |
|---|---|
| Landscape Industry Option: 31 units | Horticulture 1, 2, 51, 52, 55, 75, 76, 78, 79, 81, 86 |
| Nursery Industry Option: 29 units | Horticulture 1, 2, 51, 52, 55, 60, 70, 79, 86 |

## THE HORTICULTURE CORE

All students who seek an Associate in Arts degree in horticulture will complete the horticulture core, the specialization requirements, and the college's general education requirements. The horticulture courses are as follows:

### HORTICULTURE CORE

| Course No. | Course Title | Units |
|---|---|---|
| Horticulture 1 | Introduction to Horticulture | 3 |
| Horticulture 2 | Soils and Plant Nutrition | 3 |
| Horticulture 51 | Plant Materials I | 3 |
| Horticulture 52 | Plant Materials II | 3 |
| Horticulture 55 | Plant Diseases and Pests | 3 |
| Horticulture 75 | Landscape Construction | 3 |
| Horticulture 76 | Landscape Graphics | 3 |
| Horticulture 78 | Irrigation Design | 2 |
| Horticulture 79 | Pest Control Licensing or Certification | 2 |
| Horticulture 81 | Landscape Management | 3 |
| Horticulture 86 | Landscape Design | 3 |
| Horticulture 98 | Work Experience | 2-4 |

### AREAS OF SPECIALIZATION

### LANDSCAPE INDUSTRY OPTION

| | | |
|---|---|---|
| Horticulture 75 | Landscape Construction | 3 |
| Horticulture 78 | Irrigation Design | 2 |
| Horticulture 81 | Landscape Management | 3 |

### NURSERY INDUSTRY OPTION

| | | |
|---|---|---|
| Horticulture 60 | Nursery Practices | 3 |
| Horticulture 70 | Plant Propagation | 3 |

### ADDITIONAL COURSES NOT REQUIRED FOR DEGREES

| | | |
|---|---|---|
| Horticulture 77 | Small Gas Engines | 1 |
| Horticulture 80 | Greenhouse Operations | 3 |
| Horticulture 83 | Advanced Student Projects | 2-2 |
| Horticulture 85 | Turf Grass Management | 3 |

## THE TRANSFER PROGRAM

The American River College Horticulture Department has an articulation agreement with California Polytechnic State University, San Luis Obispo.

In addition to the general education requirements, horticulture students are required to complete a horticulture core as part of their lower division preparation. Once a transfer student is identified, the horticulture department advisor will work with the student to insure that the proper courses have been completed prior to transfer to Cal Poly.

### Course Transferability

| ARC Course | Cal Poly Course |
|---|---|
| Horticulture 1 | OH 230 |
| Horticulture 2 | SS 121 |
| Horticulture 51 | OH 231 |
| Horticulture 52 | OH 232 |
| Horticulture 60 | OH 131 |
| Horticulture 70 | OH 133 |
| Horticulture 75 | OH 126 |
| Horticulture 76 | OH 101 |
| Horticulture 80 | OH 132 |
| Horticulture 81 | OH 134 |
| Horticulture 85 | OH 243 |
| Horticulture 86 | OH 250 |

# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

## AMERICAN RIVER COLLEGE

## THE ARTICULATION PROCESS

### PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by examination and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy on Credit by Examination.

### GENERAL AGREEMENTS

1. Any secondary instructor may request that a course or program be considered for articulation. The contact person for any general questions about the Technical Vocational courses at American River College is the Dean, Technical Vocational Area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the District, or to designate a school-site coordinator.

2. American River College may initiate articulation with a District instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Technical Vocational Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a challenge examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the challenge exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor.

9. The College will invite District articulation instructors to be a part of the American River College subject-area Advisory Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Technical Vocational Area, at American River College. Forms will be available from the American River College Technical Vocational Area.

2. The Dean, Technical Vocational Area, will appoint an ARC instructor, who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the existing entry-level curriculum at American River College.

   d. Assist the secondary instructor in making any curriculum adjustments, evaluating equipment/laboratory needs, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Technical Vocational Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. When the student has successfully completed requirements indicated for articulation and has passed the challenge examination administered by American River College, the student will receive certification from the College instructor. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded.

5. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a C or better grade average. Applications will be available in the Technical Vocational Area office.

6. American River College instructors and the secondary articulation instructors will review the articulation process annually.

Attachment: Subject Area Competencies

## COMPETENCIES

## HORTICULTURE 1: INTRODUCTION TO HORTICULTURE

The student who elects to seek credit by examination for Horticulture 1 at American River College must be able to perform the following tasks:

1. Define the taxons and describe their arrangement in the plant classification system.
2. Describe the functions of various plant parts and demonstrate a knowledge of terminology associated with them.
3. Demonstrate the ability to understand the various types of plant propagation.
4. Define the cultural requirements of plants and their importance to proper growth.
5. Demonstrate knowledge of the tools and equipment used in horticulture including their identification, selection, use, and care.
6. Apply critical thinking and problem solving to the proper use of landscape practices, including planting, fertilizing, pruning, staking, lawn care, and pest management.
7. Describe the steps used in designing a new landscape or revamping an existing landscape.
8. Demonstrate a knowledge of the various landscape plant materials, including their use and care.
9. Demonstrate an understanding of the organization and operation of vegetable and fruit gardening.
10. Apply critical thinking and problem solving skills to indoor plant care, including proper selection and care.
11. Describe commercial plant production and the various methods that are used to market plants on the retail level.
12. Demonstrate a basic understanding of floral design.
13. Describe the career opportunities that exist in horticulture.

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**TECHNICAL VOCATIONAL AREA, HORTICULTURE DEPARTMENT**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

District No. High School Course Name

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

**AMERICAN RIVER COLLEGE**

**and**

**XX HIGH SCHOOL**

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course:

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Technical Vocational Area |
| Date | Date |
| Date | |

**HIGH SCHOOL CERTIFICATION**

**AMERICAN RIVER COLLEGE, TECHNICAL VOCATIONAL AREA**

**HORTICULTURE DEPARTMENT**

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___-___-____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER

_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for _____, ____ Units.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**TECHNICAL VOCATIONAL AREA**

## CHALLENGE EXAM CERTIFICATION

---

PART I: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____
Last First MI

ADDRESS_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____

I am applying for Advanced placement only_____ Advanced placement and credit_____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student took the advanced placement examination

for _____ on _____ 19__.

_____ The student passed the examination with a score of _____.

_____ The student did not pass the examination. Score _____.

_____
ARC Articulation Instructor

_____
Date

Copies to: Student
High School Instructor
Dean, Technical Vocational Area

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

OTHER

**AMERICAN RIVER COLLEGE**

**HIGH SCHOOL/REGIONAL OCCUPATIONAL PROGRAM/ADULT SCHOOL**

**HORTICULTURE DEPARTMENT**

| Instructor | School |
|---|---|
| Rhynie Hollitz | Casa Robles High School |
| Terri Cummings | Hiram Johnson High School |
| Steve Ohrwall | Rio Linda High School |
| Michael Lateano, Principal | Skills and Business Education Center |

ARTICULATION
A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

# MATHEMATICS
# ENGINEERING
# DRAFTING

AMERICAN RIVER COLLEGE
4700 College Oak Drive
Sacramento, CA 95841

## MATHEMATICS/ENGINEERING/DRAFTING AREA

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# THE DRAFTING PROGRAM

This program is designed for students planning to become draftsmen in the various fields of Architecture and Engineering. The recommended curriculum is a balanced program which provides a background in both skill and theory sufficient to qualify students for employment at the conclusion of two years of training. Since some of the course work parallels that taken by Pre-Engineering transfer students, this curriculum offers an opportunity for a change in major for a student who wishes to transfer from or to the lower division Engineering course.

**Recommended Course Sequence for Degree Program**

| First Semester | Units |
|---|---|
| Drafting 51 | 3 |
| Humanities | 3 |
| Natural Science | 3 |
| Language and Rationality + | 3 |
| Living Skills | 3 |
| | 15 |

| Second Semester | Units |
|---|---|
| Drafting 53 | 3 |
| Drafting 54 | 3 |
| Drafting 55 | 3 |
| Drafting 66 | 2 |
| Mathematics 53 + | 3 |
| Social Science | 3 |
| | 17 |

| Third Semester | Units |
|---|---|
| Drafting 57 or Engineering 10 | 3-4 |
| Drafting 59 | 5 |
| Drafting 67 | 2 |
| Social Science | 3 |
| Electives | 2 |
| | 15-16 |

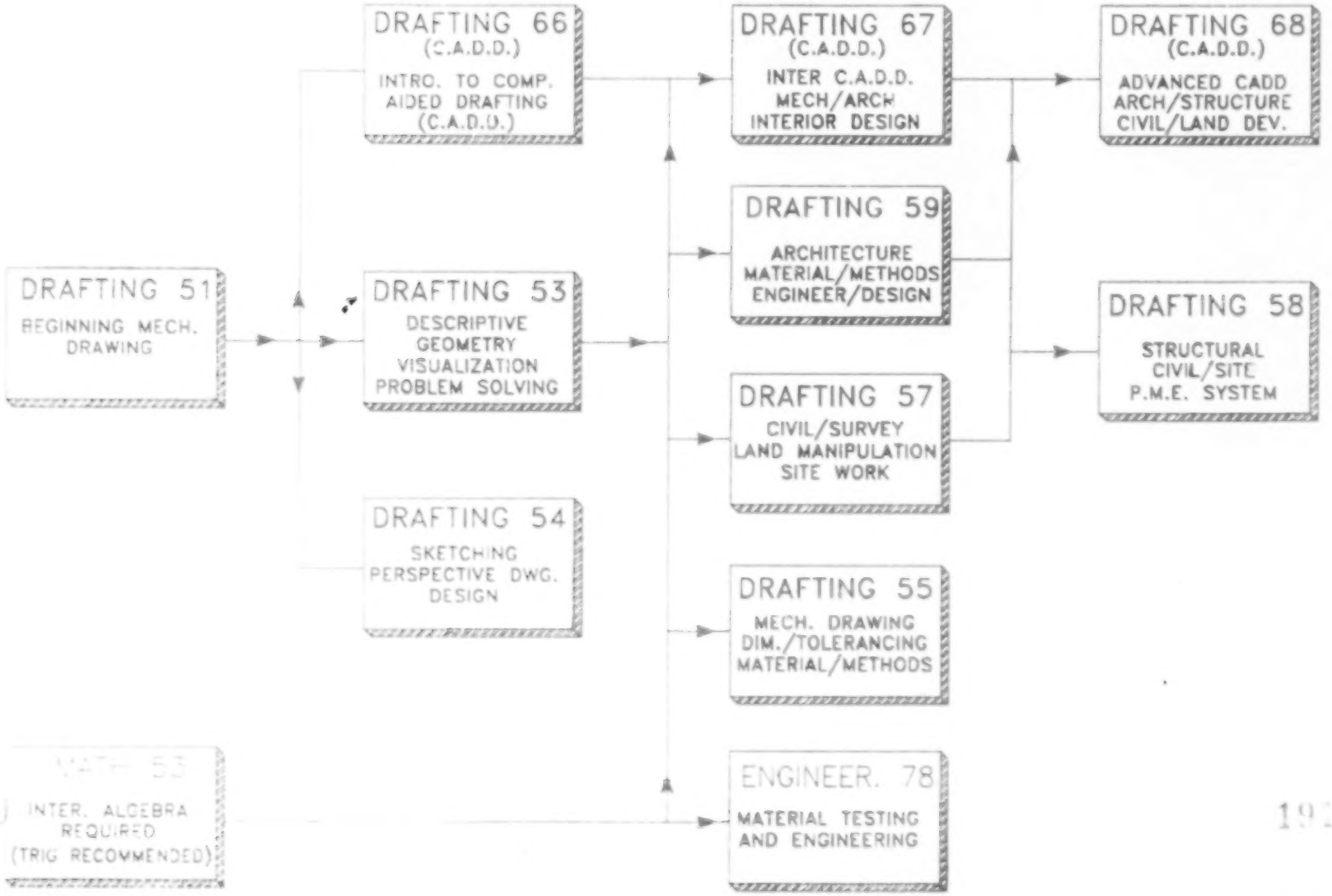
| Fourth Semester | Units |
|---|---|
| Drafting 58 | 5 |
| Engineering 78 or 37 | 3 |
| Language and Rationality + | 3 |
| Drafting 68 | 2 |
| Electives | 1 |
| | 14 |

+ = **See Language and Rationality Graduation Requirements.**
**Recommended Electives:** Horticulture 75, 76; Mathematics 15.
**Requirements for Certificate (34-35 units):** Drafting 51, Drafting 53, Drafting 54, 55, 58, 59, 66, 67, 68; Drafting 57 or Engineering 10, Engineering 78 or 37, Mathematics 53.

# AMERICAN RIVER COLLEGE

## (SEQUENCE OF DRAFTING/DESIGN COURSES)

REVISED: 4/16/90



# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA SPECIFIC LEARNING OBJECTIVES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreement

High School Certification

College Certification

# AMERICAN RIVER COLLEGE

## THE ARTICULATION PROCESS

### PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by completing the next designated course with a grade of "C" or better, and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy.

### GENERAL AGREEMENTS

1. Any secondary Drafting instructor may request that the basic Drafting and Computer Aided Drafting and Design (CADD) classes be considered for articulation. The contact person for any general questions about the Drafting courses at American River College is the Dean, Mathematics/Engineering/Drafting area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the District, or to designate a school-site coordinator.

2. American River College may initiate articulation with a District instructor.

3. The Dean, Mathematics/Engineering/Drafting area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

4. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content.

5. Course objectives, outlines, and/or competencies need not match 100 percent.

6. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

7. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

Students may gain advanced placement by submitting a completed high school certification form for Drafting 51 and/or Drafting 66.

1. Credit for Drafting 51 (Beginning Drafting - 3 Units), will be awarded upon the successful completion of Drafting 53 with a grade of "C" or better.

2. Credit for Drafting 66 (Computer-Assisted Drafting - 2 Units), will be awarded upon the successful completion of Drafting 67 with a grade of "C" or better.

## DRAFTING 51: BASIC TECHNICAL DRAFTING

**Catalog Description:** Training in the dimensioning of engineering machine drawings. Teaches basic dimensioning concepts and geometric tolerancing. Methodology in proper dimensioning of orthographics, sections, auxiliaries, forging, and casting drawings will be studied as well as basic manufacturing techniques.

### SPECIFIC LEARNING OBJECTIVES

| | |
|---|---|
| Orientation (1 week) | The Graphic Language, equipment, pencil grades, vertical and inclined lettering. |
| Lines (1 week) | Alphabet of Lines, use of T-square and triangles in line drawings. |
| Geometril Construction (3 weeks) | Scales (engineers, metric and architects), use of compass and dividers. Tangencies, and geometric construction related to instrument use. |
| Orthographic and Pictorial Drawing and Sketching (5 weeks) | "Glass" box concept with six view drawing. Multi-view drawings of various geometric shapes. Basic freehand sketching as an aid to visualization and problem solving. |
| Auxiliary Drawings (3 weeks) | Primary and secondary auxiliary drawings with emphasis on views that show true length and true size. |
| Section Drawings (3 weeks) | Full, half, offset, and broken-out sections. |
| Pictorial and Dimension Drawing (2 weeks) | Mechanical axonometric drawing. Introduction to basic dimensioning. |

## DRAFTING 66 - INTRODUCTION TO COMPUTER ASSISTED DRAFTING

**Catalog Description:** Designed to teach students how to produce engineering drawings with an electronic computer (CAD) and an on-line plotter. Included will be instructions in CAD programming and electronic drafting trends.

### SPECIFIC LEARNING OBJECTIVES

| | |
|---|---|
| Introduction to CAD (1 week) | Overview<br>Equipment Requirements<br>Optional Equipment<br>Concepts and Terminology<br>Program Operation |
| System and Drawing Definition (1 week) | System configuration<br>Boot-up/Log-on Drawing Definition<br>Important Basic Function<br>Main Menu |
| Utility Commands (3 weeks) | Help Command<br>End Command<br>Quit Command<br>Menu Command<br>Files Command<br>Save Command<br>Status Command<br>Limits Command<br>Units Command<br>Rename Command<br>Purge Command<br>Listing Drawing File Names<br>Listing Other File Names<br>Deleting Files<br>Renaming Files<br>Copying Files |
| Draw Commands (3 weeks) | Line Command<br>Point command<br>Circle Command<br>ARC Command<br>Trace Command<br>Polylines (+3)<br>Pline Command<br>Polygon Command<br>Doughnut Command<br>Ellipse Command<br>Solid Command<br>Test Command<br>Dtext Command |

| | |
|---|---|
| Edit and Inquiry Commands (3 weeks) | Erase Command<br>Oops Command<br>Move Command<br>Copy Command<br>Rotate Command<br>Scale Command (+3)<br>Mirror Command<br>Stretch Command<br>Array Command<br>Change Command<br>Break Command<br>Trim Command (+3)<br>Extend Command<br>Fillet Command<br>Chamfer Command<br>Offset Command<br>Divide Command<br>Measure Command |
| Display Controls (2 weeks) | Zoom Command<br>Pan Command<br>View Command<br>Redraw Command<br>Regen Command<br>Fill Command<br>Blipmode Command<br>Qtext Command<br>Dragmode Command<br>Viewres Command<br>Regenauto Command |
| Layers, Colors, and Linetypes (2 weeks) | Basic Concepts<br>Properties of Layers |
| Drawing Aids (2 weeks) | Snap Command<br>Grid Command<br>Axis Command<br>Ortho Command<br>Isoplane Command<br>Object Snap - Geometric Constructions |
| Final Exam (1 week) | |

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**MATHEMATICS/ENGINEERING/DRAFTING AREA**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

| District No. | High School Course Name |
|---|---|

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

AMERICAN RIVER COLLEGE

and

XX HIGH SCHOOL

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s): Drafting I and Industrial CAD

American River College Course: Drafting 51 and Drafting 66

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Math/Engineering/Drafting |
| Date | Date |
| | |
| Date | |

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, MATHEMATICS/ENGINEERING/DRAFTING AREA

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN ___ - ___ - ____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

DRIVER'S LICENSE NUMBER

_____

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for advanced placement in Drafting.

In addition, the student has been advised that:

1. He/she must earn a grade of "C" or better in Drafting 53 and/or 67, in order to receive credit for Drafting 51 and/or 66.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**MATHEMATICS/ENGINEERING/DRAFTING AREA**

# CHALLENGE EXAM CERTIFICATION

---

PART 1: TO BE COMPLETED BY STUDENT

NAME_____ SSN _____
Last First MI

ADDRESS_____ ZIP_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION_____

PHONE NO. _____

I am applying for Advanced placement only _____ Advanced placement and credit _____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed Drafting 53 with a grade of "C" or better and is entitled to credit for Drafting 51 (Beginning Drafting - 3 Units).

_____
ARC Articulation Instructor

_____
Date

Copies to: High School Instructor
Dean, Mathematics/Engineering/Drafting Area
Student

**AMERICAN RIVER COLLEGE**

**MATHEMATICS/ENGINEERING/DRAFTING AREA**

# CHALLENGE EXAM CERTIFICATION

---

PART 1: TO BE COMPLETED BY STUDENT

NAME_____ SSN _____
Last First MI

ADDRESS_____ ZIP_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION_____

PHONE NO. _____

I am applying for Advanced placement only _____ Advanced placement and credit _____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed Drafting 67 with a grade of "C" or better and is entitled to credit for Drafting 66 (Computer-Assisted Drafting - 2 units).

_____
ARC Articulation Instructor

_____
Date

Copies to: High School Instructor
Dean, Mathematics/Engineering/Drafting Area
Student

ARTICULATION
A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

# MATHEMATICS

AMERICAN RIVER COLLEGE
4700 College Oak Drive
Sacramento, CA 95841

## MATHEMATICS DEPARTMENT

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## THE MATHEMATICS PROGRAM

The Mathematics Department offers classes that include all the lower division mathematics courses normally taken at the university level. In addition, it offers classes to prepare students for university-level mathematics classes. The American River College Mathematics Department is well-known for preparing students for university work. Students who have taken their lower division mathematics classes at ARC do as well or better than students who enter either the CSU or UC system from high school.

A student who is preparing for a degree from a university should complete the following courses while in high school: Algebra I, Algebra II, Geometry, and Trigonometry/Math Analysis.

The Mathematics Department is responsible for the course offerings of the Statistics Department and the Math Learning Center (MLC), as well as the full range of courses within the math curriculum. The Math Learning Center features an independent study program that makes it possible for a student to complete a course in more, or less, time than the regular semester. However, there are minimum progress and attendance requirements that must be maintained. Students may enroll in arithmetic and beginning or intermediate algebra.

Another component of the Math Department is the Math Computer Center, which supports the course offerings of the Math Learning Center, statistics, and Math 5: Computer Supplement to Calculus, as well as the full range of courses from the math curriculum. The Math Computer Center consists of 16 IBM PC's (which is presently being upgraded to 20 stations), a teacher station with a laser printer, two mobile stations for use in the classroom, and the network server. Students use the PC's to access the programs on the network. Classes in Finite Mathematics, Statistics, and Computer Supplement to Calculus all require students to have one hour of math computer lab work per week to be arranged by the instructor.

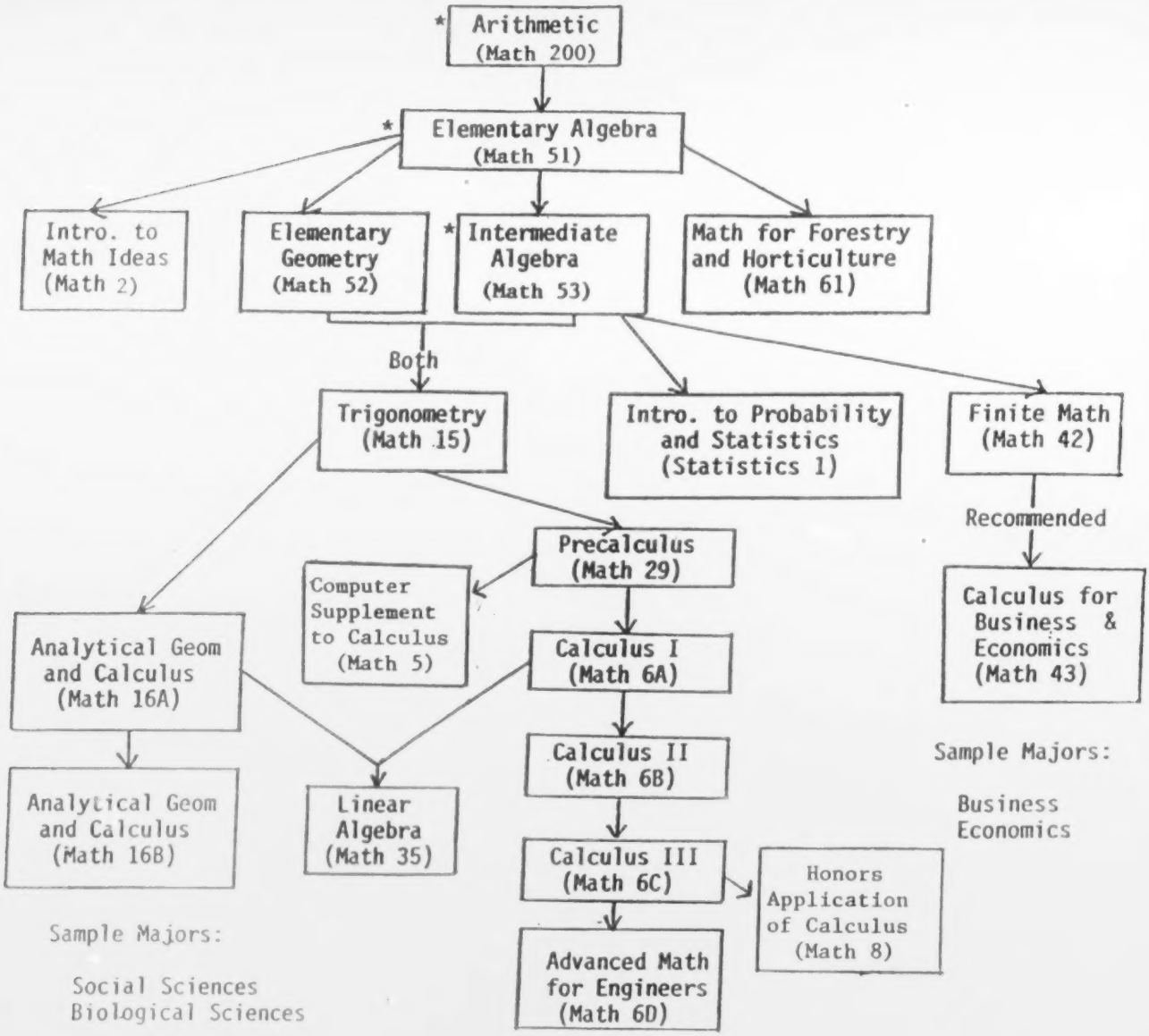
## COLLEGE BOARD ADVANCED PLACEMENT TESTS

The following scores will be used by American River College to determine the course for which you will receive credit in calculus after successfully completing 12 units at American River College. Students who plan to transfer to a university should check with their counselor or the Math Department Area Dean to determine which scores are acceptable at the university. Each university campus and department has its own standard for granting credit based on the Advanced Placement Exam scores.

| College Board Exam | Score | Course |
|---|---|---|
| Calculus AB | 3, 4, 5 | Math 6A, Calculus I<br>4 units |
| Calculus BC | 3, 4, 5 | Math 6A/B, Calculus I/II<br>8 units |

# AMERICAN RIVER COLLEGE

## MATHEMATICS DEPARTMENT


* Arithmetic (Math 200)
* Elementary Algebra (Math 51)
Intro. to Math Ideas (Math 2)
Elementary Geometry (Math 52)
* Intermediate Algebra (Math 53)
Math for Forestry and Horticulture (Math 61)
Both
Trigonometry (Math 15)
Intro. to Probability and Statistics (Statistics 1)
Finite Math (Math 42)
Recommended
Precalculus (Math 29)
Computer Supplement to Calculus (Math 5)
Calculus for Business & Economics (Math 43)
Analytical Geom and Calculus (Math 16A)
Calculus I (Math 6A)
Calculus II (Math 6B)
Sample Majors:
Business
Economics
Analytical Geom and Calculus (Math 16B)
Linear Algebra (Math 35)
Calculus III (Math 6C)
Honors Application of Calculus (Math 8)
Advanced Math for Engineers (Math 6D)
Sample Majors:
Social Sciences
Biological Sciences

Sample Majors:

Computer Science
Mathematics
Engineering
Physical Science

*Your choice of instruction method:

- Individualized pace in Math Learning Center
- Traditional lecture

Revised 6/89

# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

AMERICAN RIVER COLLEGE

# THE ARTICULATION PROCESS

## PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by examination and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy on Credit by Examination.

## GENERAL AGREEMENTS

1. Any secondary instructor may request that a course or program be considered for articulation. The contact person for any general questions about the mathematics courses at American River College is the Dean, Mathematics/Engineering Area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the District, or to designate a school-site coordinator.

2. American River College may initiate articulation with a District instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Mathematics/Engineering Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a challenge examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the challenge exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor.

9. The College will invite high school articulation instructors to attend the meetings of the Mathematics Articulation Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Mathematics/Engineering Area, at American River College. Forms will be available from the American River College Mathematics/Engineering Area.

2. The Dean, Mathematics/Engineering Area, will appoint an ARC instructor, who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the existing entry-level curriculum at American River College.

   d. Assist the secondary instructor in making any curriculum adjustments, evaluating equipment/laboratory needs, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Mathematics/Engineering Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. When the student has successfully completed requirements indicated for articulation and has passed the challenge examination administered by American River College, the student will receive certification from the College instructor. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded.

5. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a 2.00 or better grade average. Applications will be available in the Mathematics/Engineering Area office.

6. American River College instructors and the secondary articulation instructors will review the articulation process annually.

Attachment: Subject Area Competencies

## MATHEMATICS 29: PRECALCULUS MATHEMATICS

**Catalog Description**: Theory, application, and graphing of polynomial, logarithmic, exponential, trigonometric functions; systems of linear and non-linear equations; inequalities, analytic geometry including straight lines, conic sections, graphing and curve sketching.

### SPECIFIC LEARNING OBJECTIVES

| | | |
|---|---|---|
| 1. Basic Concepts | a) | Real Number System |
| | b) | Rectangular Coordinates |
| | c) | Absolute Value |
| | d) | Complex Number System |
| 2. Inequalities | a) | Linear Inequalities |
| | b) | Solutions by Factoring |
| | c) | Inequalities Involving Rational Expressions |
| | d) | Absolute Value Inequalities |
| 3. Polynomial Functions | a) | Factoring and Roots |
| | b) | Remainder Theorem |
| | c) | Factor Theorem |
| | d) | Fundamental Theorem of Algebra |
| | e) | Rational Root Theorem |
| | f) | Descartes' Rule of Signs |
| | g) | Applications to Optimization |
| 4. Graphs of Functions | a) | Polynomial |
| | b) | Rational |
| | c) | Partial Fractions |
| | d) | Techniques in Graphing |
| | e) | Methods of Combining Functions |
| 5. Logarithmic and Exponential Functions | a) | Rational and Irrational Exponents |
| | b) | Factoring with Rational Exponents |
| | c) | Properties of Logarithms |
| | d) | Solving Logarithmic and Exponential Equations |
| | e) | Graphs |
| | f) | Applications (word problems) |
| 6. Review of Trigonometric Functions | a) | Trigonometric Functions of Angles |
| | b) | Trigonometric Functions of Real Numbers |
| | c) | Graphs of Trigonometric Functions |
| | d) | Law of Sines and Law of Cosines |
| | e) | Identities |
| | f) | Trigonometric Equations |
| | g) | Inverse Trigonometric Functions |
| | h) | Trigonometric Form for Complex Numbers (optional) |
| | i) | DeMoivre's Theorem (optional) |

| | | | |
|---|---|---|---|
| 7. | Systems of Equations | a) | Substitution and Linear Combinations for Two and Three Variables |
| | | b) | Matrices and Determinants |
| | | c) | Gaussian Eliminations |
| | | d) | Nonlinear Systems of Equations |
| | | e) | Systems of Inequalities |
| 8. | Analytic Geometry | a) | Slope and Distance |
| | | b) | Straight Lines |
| | | c) | Circles |
| | | d) | Ellipses |
| | | e) | Parabolas |
| | | f) | Hyperbolas |
| | | g) | Applications (Word Problems) |
| | | h) | Polar Form of Conic Sections |
| | | i) | Translation of Axes |
| | | j) | Rotation of Axes (optional) |
| 9. | Miscellaneous Topics | a) | Mathematical Induction |
| | | b) | Factorial Notation with Application |
| | | c) | Binomial Theorem |
| | | d) | Sequences and Series |
| | | e) | Properties of Summation Notation |
| | | f) | Vectors and Applications |

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**MATHEMATICS/ENGINEERING AREA**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

| District No. | High School Course Name |
|---|---|

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

**AMERICAN RIVER COLLEGE**

**and**

**XX HIGH SCHOOL**

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course:

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Mathematics/Engineering Area |
| Date | Date |
| Date | |

## HIGH SCHOOL CERTIFICATION

## AMERICAN RIVER COLLEGE, MATHEMATICS/ENGINEERING AREA

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME _____ SSN _____ - _____ - _____
Last First MI

ADDRESS _____ CITY _____ ZIP _____

HIGH SCHOOL _____ YEAR OF GRADUATION _____

PHONE NO. _____ YEAR OF BIRTH _____ SEX ___Female ___Male

ETHNICITY: Please check one.

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER

_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for _____.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**MATHEMATICS/ENGINEERING AREA**

**CHALLENGE EXAM CERTIFICATION**

---

PART I: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____
Last First MI

ADDRESS_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____

I am applying for Advanced placement only_____ Advanced placement and credit_____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student took the advanced placement examination

for _____ on _____ 19__.

_____ The student passed the examination with a score of_____.

_____ The student did not pass the examination. Score _____.

_____
ARC Articulation Instructor

_____
Date

Copies to:
Student
High School Instructor
Dean, Mathematics/Engineering Area

1990 12-73

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

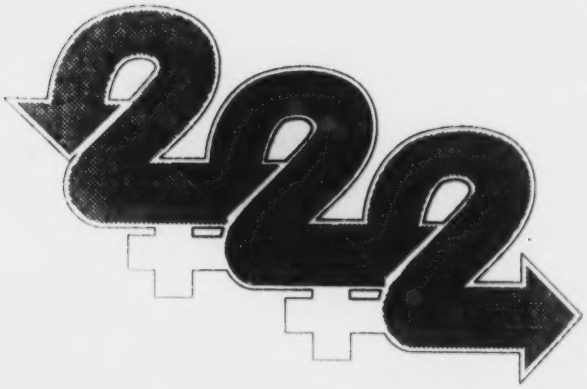
OTHER

**AMERICAN RIVER COLLEGE**
**and**
**AREA HIGH SCHOOLS**

**Mathematics Articulation Committee**

Pilot Program Participants

| | |
|---|---|
| Donna M. Smith<br>Dean, Mathematics/Engineering Area | American River College |
| Bill Edgar | American River College |
| Ed Harper | American River College |
| Scott Newey | American River College |
| Duane Peterson | Del Campo High School |
| Ken Smith | Del Campo High School |
| David Blackwell | Grant Union High School |
| Lynda Holmes | San Juan Unified School District |
| Carol Waters | San Juan Unified School District |
| John Phillips | San Juan High School |
| John Sander | Encina High School |



# ARTICULATION
## A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

# SCIENCE

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

# SCIENCE

In progress . . . .

# ARTICULATION
## A Partnership for Excellence

High Schools/ ROP/ Adult Schools ✣ American River College ✣ Universities

Technical Vocational Area

# WELDING

**AMERICAN RIVER COLLEGE**
4700 College Oak Drive
Sacramento, CA 95841

## WELDING

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## THE WELDING PROGRAM

The welding program is designed to provide students with the knowledge and skills needed for employment as welding technicians in the field of manufacturing technology.

Students who plan to earn a degree will complete a two-year program at American River College. The skills learned in the welding program allow the students to become financially self-sufficient.

In this section you will find a brief summary of the ARC Welding Program. For more information, we encourage you to consult the college catalog and a guidance counselor.

## THE ASSOCIATE IN ARTS DEGREE

To earn an AA degree in welding, students are required to complete a welding core consisting of 33 semester units and to complete the college's general education requirements. Please refer to the latest catalog for a complete listing of the welding degree requirements and the recommended course sequence.

## CERTIFICATE OF ACHIEVEMENT

Students who wish to prepare for employment in the welding trade but do not wish to complete the college's general education requirements may earn a Certificate of Achievement in welding by completing the courses listed in the welding core.

## THE WELDING PROGRAM

All students who seek an Associate in Arts degree in welding will complete the welding core and the college's general education requirements. The welding core is as follows:

## THE WELDING CORE

The welding core is designed to provide a common body of knowledge and to provide intensive preparation for welder certification. The courses required are as follows:

| Course No. | Course Title | Units |
|---|---|---|
| Welding 51 | Introduction to Welding | 3 |
| Welding 54 | Introduction to Metallurgy and Welding Inspection | 4 |
| Welding 62A | Shielded Metal Arc Welding | 3 |
| Welding 62B | Shielded Metal Arc Welding | 3 |
| Welding 64 | Gas Tungsten Arc Welding | 3 |
| Welding 65A | Gas Metal Arc Welding, Semi-Automatic Processes | 3 |
| Welding 65B | Gas Metal Arc Welding | 2 |
| Welding 66 | Symbol Reading, Layout, and Fabrication | 3 |
| Welding 69A | Pipe and Tube Welding | 3 |
| Welding 69B | Pipe and Tube Welding | 3 |
| Welding 91 | Certification Welding | 3 |

## ADDITIONAL COURSES NOT REQUIRED FOR DEGREE

| | | |
|---|---|---|
| Welding 77 | Maintenance and Repair, Welding Applications for Industry | 2 |
| Welding 83 | Advanced Student Projects | 2,2 |
| Welding 93 | Topics in Welding | 1-5 |
| Welding 98 | Work Experience | 1-4 |

It is recommended that students who enroll in the welding program take elementary algebra and basic technical drawing. If not completed prior to enrolling at American River College, it is recommended that students take Math 51, Elementary Algebra, and Drafting 51, Basic Technical Drawing.

## THE TRANSFER PROGRAM

The American River College Welding Department has an articulation agreement with California State University, Sacramento, and California State University, Chico.

In addition to the general education requirements, welding students are required to complete a welding elective as part of their lower division preparation. The transfer welding core is NOT identical to the ARC core and is not identical for each of the CSU campuses. However, the requirements are listed in the current catalog for each of the campuses. Additional information is available in the Transfer Center, located in the Counseling Office.

### Course Transferability

| ARC | CSU Chico | CSU Sacramento |
|---|---|---|
| Welding 51 | ITEC 152-4 | MET |

# THE ARTICULATION PROCESS

PURPOSE

GENERAL AGREEMENTS

PROCEDURE

SUBJECT AREA COMPETENCIES

FORMS FOR PROCESSING

Request for Articulation

Articulation Agreements

High School Certification

College Certification

AMERICAN RIVER COLLEGE

# THE ARTICULATION PROCESS

## PURPOSE

The purpose of the articulation process is to provide the means to blend high school courses or programs with like American River College courses or series of courses. The end result will be a smoother transition from high school to college, elimination of course work duplication, incentive to begin education/training at advanced levels, and better utilization of resources.

Secondary students who meet the requirements for advanced standing when entering American River College will receive college credit for articulated course(s) after demonstrating competency by examination and after completing a minimum of twelve units (semester hours) of credit with good standing at American River College. This is consistent with the Los Rios Community College District policy on Credit by Examination.

## GENERAL AGREEMENTS

1. Any secondary instructor may request that a course or program be considered for articulation. The contact person for any general questions about the Technical Vocational courses at American River College is the Dean, Technical Vocational Area. Districts are encouraged to appoint a contact person to coordinate subject-area articulation for the District, or to designate a school-site coordinator.

2. American River College may initiate articulation with a District instructor.

3. The integrity of college course(s) articulated must be maintained. Courses that transfer to the California State University system or to the University of California system will be identified in the American River College catalog, and courses that transfer to specific campuses for specific majors will be identified by articulation agreements.

4. The Dean, Technical Vocational Area, will be responsible for seeing that the process remains in place and that appropriate faculty participate in good faith.

5. Curriculum, including competencies, will be reviewed at least once a year. The participating high schools and/or American River College may be required to revise their curriculum to maintain up-to-date content and insure transferability.

6. Course objectives, outlines, and/or competencies need not match 100 percent.

7. All participating faculty and administrators will have orientation on and access to the curriculum of the articulated course(s). Faculty and administrators participating in the articulation project must have orientation on the articulation process.

8. American River College will provide a challenge examination which will be administered twice a year, once at the end of the first semester and once at the end of the second semester. The high school articulation instructor(s) will certify the preparation of the student(s) and provide a list of certified students prior to the challenge exam. ARC will notify each student of the test results and will send a copy of the notice to the articulation instructor.

9. The College will invite District articulation instructors to be a part of the American River College subject-area Advisory Committee and will notify them of the time and place of meetings.

10. Articulation agreements will be valid for one year from the date signed or until voided by one of the parties. Contracts, including renewals, will be signed by participating instructors on an annual basis.

**PROCEDURE**

1. A secondary instructor desiring to articulate a course will complete and submit a "Request for Articulation" form to the Dean, Technical Vocational Area, at American River College. Forms will be available from the American River College Technical Vocational Area.

2. The Dean, Technical Vocational Area, will appoint an ARC instructor, who will arrange for meetings with the secondary instructor(s) to:

   a. Compare high school and college courses and note similarities and differences.

   b. Review the competencies required in the college course and the process for earning advanced placement.

   c. Mutually develop and adopt a list of competencies based on the existing entry-level curriculum at American River College.

   d. Assist the secondary instructor in making any curriculum adjustments, evaluating equipment/laboratory needs, sharing instructional materials, visiting sites, etc.

   e. Identify in-service training needs.

3. The Dean, Technical Vocational Area, will coordinate in-service training for personnel and monitor the progress of the articulation process.

4. When the student has successfully completed requirements indicated for articulation and has passed the challenge examination administered by American River College, the student will receive certification from the College instructor. This certification is to be presented at the time of college registration and also at the time application is made for the college credit awarded.

5. The student must initiate the application for college credit earned for articulated courses after completing twelve units at American River College with a C or better grade average. Applications will be available in the Technical Vocational Area office.

6. American River College instructors and the secondary articulation instructors will review the articulation process annually.

Attachment: Subject Area Competencies

## COMPETENCIES

## WELDING 51: INTRODUCTION TO WELDING TECHNOLOGY

The student who elects to seek college credit by examination for Welding 51 at American River College must be able to perform the following tasks:

1. To understand safety practices in electric and oxyacetylene welding.
2. Describe equipment set-up and operation on gas welding and cutting.
3. Demonstrate the correct function and operation of AC and DC welding machines and accessories.
4. Describe welding characteristics of electrodes, fast-freeze, fill-freeze, Iron powder, fast-fill, and low hydrogen.
5. Apply critical thinking and problem solving to trouble-shooting SMAW, FCAW, and GRAW processes.
6. Demonstrate the ability to weld out of position with the SMAW, GMAW, and GTAW processes.
7. Demonstrate the ability to evaluate welds by visual examination.
8. Demonstrate an understanding about the career orientation in the welding field.

# FORMS FOR PROCESSING

REQUEST FOR ARTICULATION

ARTICULATION AGREEMENT

HIGH SCHOOL CERTIFICATION

COLLEGE CERTIFICATION

**REQUEST FOR ARTICULATION**
**with the**
**TECHNICAL VOCATIONAL AREA, WELDING DEPARTMENT**
**AMERICAN RIVER COLLEGE**

Date _____

High School District: _____

High School(s): _____

Contact Person: _____

Address: _____

Phone: _____ Contact Time: _____

High School course (or related courses) to be considered from District:

| District No. | High School Course Name |
|---|---|

Materials from District attached: _____ Course outline(s)
_____ List of competencies/objectives

Course information:

Length of course:

Name and publisher of textbook(s) used:

Equipment/software used:

High School instructors requesting articulation:

| Name | Telephone No. | Contact Hours |
|---|---|---|
| | | |
| | | |
| | | |

**AMERICAN RIVER COLLEGE**

**and**

**XX HIGH SCHOOL**

# ARTICULATION AGREEMENT

American River College and XX High School agree to articulate the following course(s):

High School Course(s):

American River College Course:

Further, the parties below agree that the procedures set forth in the General Agreements and the competencies for the articulated course are part of this Agreement.

The satisfactory completion of an articulated course and passing of the challenge examination indicates attainment of competencies and skills mutually identified and agreed to by the faculties of both institutions.

| | |
|---|---|
| High School Articulation Instructor | ARC Articulation Instructor |
| Date | Date |
| Site Administrator/Principal | Dean, Technical Vocational Area |
| Date | Date |
| | |
| Date | |

**HIGH SCHOOL CERTIFICATION**

**AMERICAN RIVER COLLEGE, TECHNICAL VOCATIONAL AREA**

**WELDING DEPARTMENT**

ARC PROGRAM AREA _____ ARC COURSE _____

---

PART 1: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____ - ___ - _____
Last First MI

ADDRESS_____ CITY_____ ZIP_____

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____ YEAR OF BIRTH_____ SEX ___Female ___Male

ETHNICITY: Please check one.

___ 1. American Indian
___ 2. Black
___ 3. Asian
___ 4. Hispanic
___ 5. Filipino
___ 6. White
___ 7. Other, non-white
___ 8. Decline to state

DRIVER'S LICENSE NUMBER

_____

HIGHEST EDUCATIONAL GOAL. Please check one.

___ 1. High school diploma only
___ 2. Attend community college; classes or certificate only
___ 3. AA or AS degree from community college
___ 4. Attend 4-year college
___ 5. BA or BS degree from 4-year college

---

PART 2: TO BE COMPLETED BY THE HIGH SCHOOL ARTICULATION INSTRUCTOR

I certify that the above-named student has successfully completed the high school course work with a grade of "A" or "B" (or is in satisfactory progress) and all other requirements needed to qualify for the advanced placement examination for _____, ____ Units.

In addition, the student has been advised that:

1. He/she must earn a grade of 70% on the challenge examination to qualify for advanced placement.

2. In order to apply for credit, he/she must complete 12 units at American River College and must be enrolled in good academic standing (see ARC catalog, Credit by Examination).

_____
Articulation Instructor

_____
Date

**AMERICAN RIVER COLLEGE**

**TECHNICAL VOCATIONAL AREA**

## CHALLENGE EXAM CERTIFICATION

---

PART I: TO BE COMPLETED BY STUDENT

NAME_____ SSN_____
Last First MI

ADDRESS_____
Street City State ZIP

HIGH SCHOOL_____ YEAR OF GRADUATION _____

PHONE NO._____

I am applying for Advanced placement only_____ Advanced placement and credit_____

---

PART 2: TO BE COMPLETED BY THE ARC ARTICULATION INSTRUCTOR

I certify that the above-named student took the advanced placement examination

for _____ on _____ 19__.

_____ The student passed the examination with a score of _____.

_____ The student did not pass the examination. Score _____.

_____
ARC Articulation Instructor

_____
Date

Copies to: Student
High School Instructor
Dean, Technical Vocational Area

# SUPPLEMENTAL INFORMATION

COURSES ARTICULATED

PARTICIPANTS

OTHER

**AMERICAN RIVER COLLEGE**
**HIGH SCHOOL/REGIONAL OCCUPATION PROGRAM/ADULT SCHOOL**

**1989-1990 ARTICULATION AGREEMENTS**

**WELDING DEPARTMENT**

| Instructor | School |
|---|---|
| Robert M. Dill | Cordova High School |
| Dallas D. Davis, Jr. | Davis High School |
| Gary D. Erickson | El Camino ROP |
| Gene Trinca | Foothill High School |
| Pete Campos | Grant Union High School |
| Howard Bowington | Rio Linda Sr. High School |
| Steve Hamilton | San Juan High School |

# APPENDIX

# LOS RIOS DISTRICT COURSE NUMBERING

| Course Numbers | Designation |
|---|---|
| 1 - 49 | Courses numbered 1 through 49 are generally articulated for transfer with four-year institutions and are intended to meet major, general education, breadth, or elective credit requirements. |
| 50 - 99 | Courses numbered 50 through 99 are primarily occupational/technical and meet Associate Degree requirements. Some are acceptable for transfer by four-year institutions offering similar subject matter baccalaureate degrees. |
| 100 - 199 | Courses numbered 100 through 199 are generally part of specialized programs, such as apprenticeship, criminal justice or fire technology post-service training. |
| 200 - 299 | Course numbered 200 through 299 are credit courses that are considered developmental or remedial and are not acceptable for associate degree or transfer credit. |
| 300 - 399 | Courses numbered in the 300's are noncredit courses. (Example: Human Services 300, Supervised Tutoring) |
| Number and Letter | Courses with both a number and letter are intended as sequential offerings. (Example: Physics 4A, 4B, 4C) |

# ARC GRADUATION REQUIREMENTS
# 1990-1991

American River College grants the degree of Associate in Arts or Associate in Science. Requirements for the degree conform to the laws and regulations of the California Community Colleges Board of Governors and the Los Rios Community College District Board of Trustees.

## MINIMUM REQUIREMENTS FOR GRADUATION FROM AMERICAN RIVER COLLEGE

1. Satisfactory completion of **60 units** of collegiate work with a C (2.0) grade point average in a curriculum which the district accepts toward the degree. At least **12 of the 60** required units must be earned at American River College

**AND**

2. Completion of one of the following three options:
   A. Option I - Lower division general education pattern of the California State Universities. Proficiency requirements must also be met. **SEE A COUNSELOR FOR ASSISTANCE.**

   **OR**

   B. Option II - Lower division general education pattern of the University of California, (Transfer Core Curriculum). Proficiency requirements must be met as well as category E of the ARC Graduation Requirements. **SEE A COUNSELOR FOR ASSISTANCE.**

   **OR**

   C. Option III - A two year Major Program of Study offered at American River College. See ARC catalog beginning on page 35. **SEE A COUNSELOR FOR ASSISTANCE.**

**AND**

3. **COMPLETION OF MINIMUM PROFICIENCY REQUIREMENTS IN MATHEMATICS, READING AND WRITING** (See **following page or check with a counselor.)**

**AND**

4. Completion of the following general education requirements, 21 units minimum:

   A. **NATURAL SCIENCE - ONE COURSE FROM THE FOLLOWING** (3 units minimum): Anthropology 1, 11; Astronomy 1; Biology 1A, 10, 12, 16, 17, 25, 26, 50, 51, 52; Chemistry 1A, 2A, 3, 7, 6; Environmental Studies 1; Forestry 1, 2; Geography 1, 11; Geology 1, 2; Horticulture 1; Physical Science 1; Physics 4A, 5A, 10, 11, 52; Psychology 2.

   B. **HUMANITIES - ONE COURSE FROM THE FOLLOWING** (3 units minimum): Art 3, 4, 5, 10, 26, 35; English 12, 25, 26, 27, 30, 30H, 31, 31H, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47; French 2A, 2B; German 2A, 2B; History *4, *5, *6, *19, *20; Humanities 1, 2, 3, 9; Interior Design 30; Music 2, 3A, 6, 9, 10, 11, 57; PER *2 (Dance Comp. & Prod.); Philosophy 5, 6, 7, 10, 13, 14, 20, 21, 41; Russian 2A, 2B; Spanish 2A, 2B; Speech 5; Theatre Arts 1, 2, 3, 4, 25, 35.

   C. **SOCIAL AND BEHAVIORAL SCIENCES** (6 units minimum):
      (1) American Institutions (3 units) - One course from the following: History 16, 17, 17 Honors, 18, 18 Honors; Political Science 1; Social Science 57.
      (2) Social/Behavioral Sciences (3 units) - One additional course from the following: Anthropology 2, 3, 13; Early Childhood Education +34; +35; Economics 1A, 1B; Geography 2; History *4, *5, *6, 10, *19 *20, 21, 24, 29, 30, 31, 33, 40; Home Economics +34; +35; Interdepartmental Studies 15; Management 87; Political Science 2, 5, 10, 15, 16; Psychology 1, 3, *18, 20, 26, +34; Sociology 1A, 1B, 5, 6, 20.

   D. **LANGUAGE AND RATIONALITY - TWO COURSES** (6 units minimum):
      (1) One course from the following:
      English 1A or English 1A Honors, 60; English As a Second Language 5, 63; Business 8.
      (2) One additional course from the following: Business 60; *Computer Information Science 1, 30A, 30B, 32, 33, 34, 37; Electronics 51A, 51B, 77; English 1B or English 1B Honors, 13A, 14A, 15; English As a Second Language 6; Journalism 20A; Management 51; Mathematics 1, 2, 6A, +12, 15, 16A, 29, 42, 43, 53 (formerly Math 13), 61; Mechanics 75; Philosophy 4, +12; Psychology 5; Speech 1, 15; Statistics 1.

   E. **LIVING SKILLS** (3 units minimum):
      (1) One physical education activity course with a PER designation.
      (2) Additional units from the following: Counseling and Guidance 10; *Computer Information Science 1; Early Childhood Education +33; Health Education 1, 55; Home Economics 10, +33; Human Services 21, +35, 45; Interdiciplinary Studies 10; Psychology 12, 15, *18, 24, 25, 32, +35, 50; Recreation 39; Respiratory Care 51; Sociology 22; Speech 10.

***NOTE:** Courses designated *(appearing in more than one category) may be used to satisfy a requirement in ONLY ONE CATEGORY.

**+NOTE:** Courses designated + are cross numbered in two subject areas and may count in only one area.

**NOTE:** Required major courses taken in excess of 18 units may be used to satisfy both major and general education requirements, provided they are among the general education courses listed above.

# PROFICIENCY REQUIREMENTS FOR ASSOCIATE IN ARTS OR ASSOCIATE IN SCIENCE DEGREES

Effective Fall, 1983, all students who wish to receive an A.A. or A.S. degree from American River College must demonstrate PROFICIENCY in WRITING, READING and MATHEMATICS.

The requirements are listed below:

1. **WRITTEN EXPRESSION PROFICIENCY** is satisfied by one of the following:

   A. Completion with a C or better in one of the following courses:
   English 1A or English 1A Honors, English 60, Business 8, English as a Second Language 5, ESL 63 or an equivalent course at a Los Rios community college.

   B. Completion with a C or better of a course equivalent to English 1A or English 1A Honors, at an accredited college outside of the Los Rios Community College District.

   C. Completion with a C or better of a course equivalent to English 60 at an accredited college outside of the Los Rios Community College District AND satisfactory completion of a comprehensive writing exam. The comprehensive writing examination is administered by the Assessment Center.

2. **READING PROFICIENCY** is satisfied by one of the following:

   A. Completion of English 72 with a C or better.

   B. Completion with a C or better of a course equivalent to English 72 at an accredited college outside of the Los Rios Community College District.

   C. Achieving a passing score on a reading examination. The assessment reading examination does not substitute for the reading proficiency test. The reading examination is administered by the Assessment Center.

3. **MATHEMATICS PROFICIENCY** is satisfied by one of the following:

   A. Completion of one of the following courses with a C or better, within five years preceding receipt of the A.A. or A.S. degree:

   Computer Information Science 33 (formerly Computer Science 25 or Math 25 and 26); Electronics Technology 51A and 51B, 60; Mathematics 1, 2, 6A-D, 8 Honors, 12, 15, 16A-B, 29, 35, 42, 43, 51 (formerly Math A), 52 (formerly Math B), 53 (formerly Math 13), 61; Mechanics 75; Psychology 5; Statistics 1.

   B. Achieving a passing score on the Mathematics Proficiency Examination within five years preceding receipt of the A.A. or A.S. degree. The examination is administered by the Assessment Center.

## THE TRANSFER CENTER

American River College has a firm commitment to assist students who wish to transfer to four-year colleges and universities to complete a baccalaureate degree. The Transfer Center, located in the Counseling Center, provides counselors and students with the most current information needed to ensure a smooth transition to a four-year college or university. Applications, catalogs, and other resource materials are maintained.

Representatives from the University of California, Davis, California State University, Sacramento, and the University of Pacific are scheduled on a regular basis. Each of the four-year representatives can assist with other campuses within their system. In addition, representatives from many other colleges visit the campus throughout the year.

An outstanding service of the Transfer Center is spring quarter enrollment in one course at U. C., Davis, with fees waived. Students taking advantage of this program must be an applicant for the following fall quarter at UCD.

Through the Transfer Center, an individual who meets certain criteria may enter into a Transfer Admissions Agreement with CSU, Sacramento, UC, Davis, and the University of Pacific. This agreement guarantees a student transfer admission as a junior to these campuses.

*Planning to transfer to a four-year school?*

*Ask your counselor about the*

*American River College*

# Transfer Admissions Agreement

*Guaranteed transfer admission as a junior to CSU Sacramento, U. C. Davis or University of the Pacific--Sign-up with your ARC counselor today!!*

*Special assistance to transfer students is available through the*

Transfer CENTER

*in the ARC Counseling Department*

***Extensive library of transfer resource materials including catalogs, program planners, major information, etc.***

***Transfer Calendar--to assist you in filing applications for admissions , financial aid , housing and other student support services***

*Linkages to four year school representatives*

# CALIFORNIA STATE UNIVERSITY

**NOTE:** The 20 campuses of this group form a system called California State University System, entirely separate from the campuses of the University of California. For UC and CSU requirements, see a counselor.

**Requirements for the Bachelor's Degree**-The degree requirements at a California State University consist, in general, of: (1) the General Education Requirements which are required of all degree candidates; (2) the Major Department Requirements which are a part of the student's field of specialization; (3) individual campus graduation requirements, and (4) state law requirements. These requirements are classified in two levels: lower division and upper division. Students may complete up to 70 lower division units which may involve preparation for the major and all of the lower division in the general education pattern while attending American River College.

## GENERAL EDUCATION REQUIREMENTS
## 1990-1991

Note: The following requirements apply to all students who begin college, Fall Semester, 1990.

To be eligible for graduation with a Bachelor's degree from a California State University, students must complete a minimum of 48 semester units of general education. American River College will certify completion of 39 lower division general education units for students if they follow the pattern outlined below. The remaining 9 required units must be upper division courses completed at the four year university.

If students have a subject major, it is important that lower division courses that are required for the major, or that prepare for the major, be completed prior to transfer. Sixty or more transferable units are needed for a student to transfer with junior standing. Proficiency requirements must be met (see page 23).

The following American River College courses meet this pattern:

A. **COMMUNICATION - ORAL, WRITTEN, CRITICAL THINKING** (9 units)
One course from each numbered section:
1. One course: Speech 1, 15
2. One course: English 1A; English 1A Honors; English as a Second Language 5
3. One course: English 1B; English 1B Honors; English as a Second Language 6; Philosophy 4, *6; Speech 2, 3

B. **SCIENCE AND MATHEMATICS** (9 units minimum)
One course from each numbered section:
One of the Science courses from Section 1 or 2 must include a 4 or 5 unit course with laboratory experience.
1. One course: Astronomy 1; Chemistry 1A, 2A, 7, 6; Geography 1, 11; Geology 1, 2, 3; Physical Science 1, 2; Physics 10, 11, 4A, 5A
2. One course: Anthropology 1, 11; Biology 1A, 4, 6, 10, 12, 15, 16, 17; Psychology 2
3. One course: Mathematics 1, 2, 6A, 6B, 12, 15, 16A, 16B, 29, 35, 42, 43; Psychology 5; Statistics 1

C. **THE ARTS, LITERATURE, PHILOSOPHY, FOREIGN LANGUAGE** (9 units minimum)
Two courses selected from two different subject areas:
1. Art 3, 4, 5, 10, 35; English 12, 25, 26, 27, 30, 30H, 31, 31H, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47; Humanities 1, 2, 3, 9; Music 6, 10, 11; Philosophy 5, *6, 7, 10, 13, 14, 20, 21; Theatre Arts 1, 2, 3, 4
2. At least one course selected from subject area other than above: Art 11A, 14, 16, 21A, 25A, 26, 27A, 29A, 40, 41A; French 2A, 2B; German 2A, 2B; History *4, *5, *6, *19, *20; Music 2, 3A, 9, 13, 14, 16, 17, 19, 20, 21, 22A, 26, 27, 28, 29, 30A, 33, 40, 41A, 42A, 43A, 43C, 44, 45, 46; Russian 2A, 2B; Spanish 2A, 2B; Speech 5; Theatre Arts 5, 6, 15A, 25

D. **SOCIAL, POLITICAL, ECONOMIC INSTITUTIONS** (9 units minimum) One course from each numbered section:
1. One course: History 16b, c, e, f, i, m, p, s, w, 17, 17 Honors, 18, 18 Honors.
2. One course: Political Science 1
3. One course: Anthropology 2, 3, 13; Early Childhood Education +34, 35; Economics 1A, 1B; Geography 2; History *4, *5, *6, 10, *19, *20, 24, 29, 30, 31, 33; Political Science 2, 5, 15, 16; Psychology 1, 3, *18, 20, +34; Sociology 1A, 1B, 5, 6, 20

1: Students who have successfully completed a course in government at an out of state institution may satisfy the California state and local requirements by passing an examination. SEE A COUNSELOR FOR ASSISTANCE.

E. **LIFELONG UNDERSTANDING** (3 units minimum) One course from each numbered section:
1. One course: Early Childhood Education +33; Health Education 1; Home Economics 10, +33; Human Services 21 +35, 45; Interdisciplinary Studies 10; Philosophy 41; Psychology 12, 15, *18, +24, 25, 26, 32, +35; Sociology 22; Speech 10
2. One course: Physical Education Activity Courses with PER prefix

**NOTE:** Courses designated *(appearing in more than one category) may be used to satisfy a requirement in ONLY ONE CATEGORY.

**NOTE:** Courses designated + are cross numbered in two subject areas.

**NOTE:** Courses in the major field may not be counted for General Education. (For exceptions, see your counselor.)

# UNIVERSITY OF CALIFORNIA

The University of California has nine campuses throughout the state. This catalog gives general information concerning requirements for transfer into the University of California campuses. Specific information regarding preparation for major and or/breadth requirements to the individual campuses is available in the ARC Counseling Center. There is a General Education Core at American River College which meets the general education/breadth requirements at any UC or CSU campus. Students may come to the Counseling Center for a copy of the Common General Education Core. Consult with an ARC Counselor to receive assistance with your General Education and major requirements.

## Transfer Requirements (Advanced Standing Admission):

Students planning to transfer to the U.C. system should discuss their transfer plans with a counselor, semester by semester, inasmuch as major changes frequently occur in requirements subsequent to the printing of this catalog.

An advanced standing student is one who has been a registered student in another college or university or in college-level extension classes other than a summer session immediately following high school graduation. Advanced standing applicants may not disregard their college records and apply for admission as a freshman.

## Advanced Standing Admission Requirements.

Requirements for admission in advanced standing vary according to your high school record. It is necessary for a student planning to transfer to UC Davis, UC Berkeley or any other U.C. campus to have a copy of the high school transcript sent to the ARC Admissions Office. U.C. requires an exact pattern of high school subjects. If deficiencies in either subjects or grades exist, they can be made up with courses taken at ARC. A student who has not graduated from high school or who has not graduated but has passed the State Proficiency Exam or has a GED (General Education Diploma) may also make up subject and grade deficiencies at ARC. In many cases, these courses also will help satisfy the college breadth requirements. Students are expected to complete:

1. General university requirements.
2. The particular college or school requirements.
3. Major subject requirements.

Students planning to transfer to the University are required to complete a minimum of 56 semester units of transferable work with a 2.4 GPA if the student were ineligible due to grades from high school.

An applicant who did not achieve the required score on the Eligibility Index, or did not achieve the required score and lacked required a-f subjects, may be admitted to the University after he or she has:

1. Established a college grade point average of 2.4 or better; and
2. Completed 84 quarter or 56 semester units of transferable college credits; and
3. Completed the following option:
   - -- One college course in Mathematics
   - -- One college course in English
   - -- One college course selected from U.S. History, a laboratory science or a foreign language, all with a grade of C or better.

The course in mathematics must have Algebra II (Intermediate Algebra) as a prerequisite. The University accepts, at full unit value, approved transfer courses completed with satisfactory grades at American River College. After a student has earned 70 units acceptable toward a degree,no further unit credit will be awarded toward a degree although subject credit may still be earned. Up to two units of high school work in the a-f subjects may be waived. A unit is equivalent to a one-year high school course.

## General Requirements

Students should consult counselors and college catalogs for ARC courses which have been approved to meet the College of Letters and Science breadth requirements at the University of California.

## High School Proficiency Examination

Transfer applicants who have passed a high school proficiency examination must also meet regular University entrance requirements.

## Transfer Opportunity Program (TOP)

The Transfer Opportunity Program (TOP) exists at American River College to assist ARC transfer students in the transition to the University of California at Davis.

Once a week a transfer advisor from UC Davis is available in the counseling office at ARC to assist students in fulfilling admission requirements, lower division major requirements, breadth requirements and screening requirements in impacted majors.

If you are interested in meeting with the UC Davis transfer advisor, make an appointment with an ARC counselor who can refer you to the transfer advisor. Ask for a TOP brochure in the counseling office.

**BEFORE THE GOVERNING BOARD OF THE**

_____ DISTRICT

**RESOLUTION**

In The Matter of "2+2+2" )
Articulated Program )
Agreements With )
American River College )
and California State )
University, Sacramento )

WHEREAS The Board of Trustees of the _____ School District recognizes the need to develop a planned process linking two or more educational systems to help students make a smooth transition from the secondary level of occupational or academic training to the two or four-year post-secondary level without experiencing delay or duplication of learning; and WHEREAS such an articulated four or six-year course of study will lead to a realistic skill level for those students willing to participate; and

WHEREAS the "2+2" articulated programs concept provides for open communication, renewed cooperation, understanding and respect among the instructors at our high schools, ROP Centers, American River College, and our local four-year colleges and universities; and

WHEREAS the "2+2" and the "2+2+2" articulation concept focuses on student success and improved student self concept, and

WHEREAS the "2+2" and the "2+2+2" articulated programs will provide a more realistic opportunity for a much larger percentage of our students to have a meaningful college opportunity;

NOW THEREFORE BE IT RESOLVED that the Board of Trustees of the _____ _____ School District does hereby declare its full support for the "2+2" articulated program concept; and

BE IT FURTHER RESOLVED, that the Board of Trustees of the _____ School District does encourage staff to work toward development of articulated "2+2+2" programs leading to the baccalaureate degree where appropriate.

_____ Date

_____ (Signature), Secretary Board of Trustees



ERIC Clearinghouse for Junior Colleges

JAN 25 1991